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"	135	2d	"	"	6,	"	Broad-billed,	"	Broad-winged.
"	139	2d	"	"	54,	"	miles,	"	circles.
"	140	1st	"	"	29,	after "land," add "or water left unguarded by their operations."			

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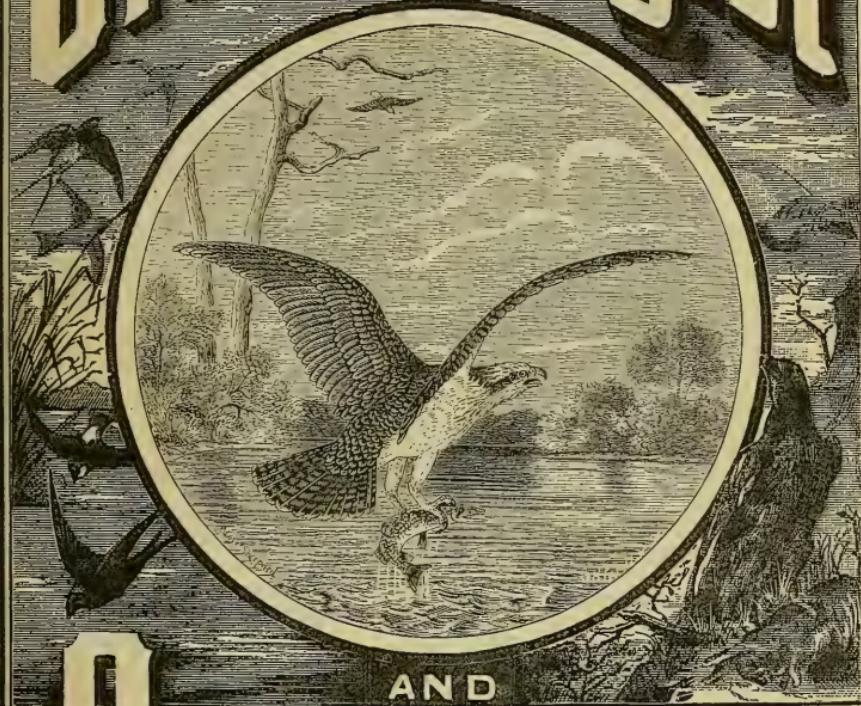
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VOLUME IX-1884.

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VOL. IX.

PAWTUCKET, R. I., JANUARY, 1884.

No. 1.

Migration in the Mississippi Valley.

Last Spring a number of ornithologists made observations on the arrival of the birds. By combining their notes, we are enabled to trace and time the movements of the birds from the Gulf of Mexico, nearly to British America. It is to be regretted that among the thirty to forty observers, so small a number were from the Southern States; and it is hoped that in the observations of next Spring, which are to include not only the Mississippi Valley, but the whole United States and Canada, the South will be ably represented.

Notes on over three hundred species were sent me by the different observers, and from them I will select a few to show the character of the work.

We will begin with the KINGBIRD (*Tyrannus carolinensis*.) This well-known bird almost entirely deserts the United States during the Winter, a few remaining in the Southern States. But although it scatters in Summer all over the Mississippi Valley and far into British America, it is one of the late migrants. Mr. T. S. Ward, at Canton, Miss., saw the first one March 10. Farther west, at Waxahachie, Texas, they did not come until much later. It is in general true, as shown by several hundred observations, that the migration across the plains averages from four days to a week later than at places in the same latitude nearer the Mississippi, and in a timbered country.

Starting now from Canton, Miss., which is in latitude 32 deg., it took the King-

bird thirty-eight days to reach Anna, Ill., directly north in lat. $37\frac{1}{2}$ deg., or an average of ten miles a day. The next day found them a degree farther north at St. Louis. The next degree to Griggsville, Ill., was made in six days, and four days later, on April 28, they had passed to Liter, Ill., in lat. 40 deg. In the meanwhile a single straggler had been seen on April 10, at Osceola, Ill., lat. 41 deg.; but the regular migration was much later and the birds reached Jefferson, Wis., lat. 43 deg., on May 6, and the next day appeared at Hastings, Minn., lat. 45 deg. We see then that from lat. 32 deg. to $37\frac{1}{2}$ deg. the rate of migration was 10 miles per day; from $37\frac{1}{2}$ deg. to 40 deg., 16 miles; and from 40 deg. to 45 deg., nearly 40 miles per day. This sudden increase of speed may possibly, if not probably, be accounted for by studying the weather record for the first few days of May. The Signal Service Reports show that from April 29 to May 4, there were almost continuous warm south winds in the upper part of the Mississippi Valley, with slight warm rains. The records of other birds show that these same days were days of great onward movements all along the line. The stations north of Hastings omitted the date of arrival of the Kingbird, but at the same rate of travel, the foremost ones would reach British America about May 15.

It is usually true that migration is most rapid toward the northern part of its course; and we may suppose that this fact is the result of the other fact that the

advance of the seasons is a little more rapid the farther north it extends. It is also true that the later in the season a bird migrates, the more regular, and usually the more rapid, will be its movements. Among some hundred or more species on whom special study was expended, the BALTIMORE ORIOLE (*Icterus galbula*) was found to have the most regular and uniform record. It is also one of the later birds to migrate. To pass from lat. $34\frac{1}{2}$ deg. to 40 deg. required 14 days or 28 miles per day; from 40 deg. to 43 deg. occupied 7 days or 30 miles; and the distance from 43 deg. to $45\frac{1}{2}$ deg. was passed in 5 days, that is 35 miles per day, while the average per day for the whole distance of nearly eight hundred miles, was 30 miles. This is a remarkably uniform record and would be an impossibility to a bird like the PURPLE MARTIN (*Progne subis*), which migrates while the weather is still cold and changeable. Look at its record. It passed the first 4 deg. at 16 miles per day; the next $2\frac{1}{2}$ deg. at 12 miles; the next $4\frac{1}{2}$ deg. at 63 miles; and the last $2\frac{1}{2}$ deg. at 10 miles, making an average of only 18 miles per day. Or still earlier, take the ROBIN, (*Merula migratoria*), which was 39 days in passing from lat. $38\frac{1}{2}$ to lat. $45\frac{1}{2}$ deg., or 13 miles per day. According to the notes of last Spring, the bird of most rapid migration is the SOLITARY VIREO, which passed from lat. $38\frac{1}{2}$ deg. to lat. $45\frac{1}{2}$ deg. at the rate of 81 miles per day. The slowest migrant was the RED-EYED VIREO, (*Vireo olivacea*), which performed a journey of nearly 800 miles at about 7 miles a day. It must not be supposed that the problems of bird migration present themselves at first in this simple and plain form. Many things have to be taken into account. Out of the mass of notes sent in, some are evidently mistakes, and for others allowances have to be made according to the kind of country and the opportunities of the observer.

We have given these notes here that all

may see the interesting problems which present themselves to the notice of the student of migration. But these same problems cannot be solved by the labors of any one person. It is only by the united and persistent efforts of a large body of observers that a satisfactory solution can be reached. What we want is *observers*. The work the past two years was confined to the Mississippi Valley, but the coming Spring the work will be extended. The new society, the National Ornithologists Union, has taken up the work and the observations will be carried on throughout the whole of the United States and Canada. To do this, we want several hundred observers; the more the better, and it is earnestly desired that all who can will aid us. Any who are willing to help in the work, even if they can contribute only their mite, will please send in their address, and the circular containing full instructions will be sent them. Those outside the Mississippi Valley may address Dr. C. Hart Merriam, Locust Grove, N. Y. Those in the Mississippi Valley and Manitoba, will please send their names to W. W. Cooke, *Caddo, Indian Territory*.

Notes from Chester Co., Pa.

The nests of the Turkey Buzzard (*Cathartes aura*) have been taken more frequently this year than ever before in the oological history of the county. Although a common bird, it rarely nests outside of the wilds of the "Welsh Mountain." Two nests and eggs were taken this Spring, by boys, on the Brandywine Creek, besides one or two found in the northern part of the county.

A nest of the Messina Quail (*Coturnix communis*) has been seen about a mile north of West Chester. This bird has been introduced into Chester County from Europe for game purposes, but the success of the experiment has hitherto been doubted.

One or two pairs of Mocking Birds have

been noticed in the county, but I have not heard of any nests being found. A few nests of this bird were found here several years ago, but we can only class them as casual visitors, until more certain evidence of their nesting is obtained.

The collectors of the county all complain of having had poor success this season.—*W. S. M., West Chester, Pa.*



The Wood or Summer Duck.

This is considered the most beautiful of the many species of Ducks in the United States.

It is well known for the brilliant coloring and metallic lustre of its feathers, and abundant wherever there are fresh water ponds and streams.

The birds are shy, and it is not often they can be observed very closely. We once surprised a flock of about twenty-five, when gunning in New Jersey. Rowing up the stream, we came, about daylight, to a sharp bend, where bushes hid our approach. The flock were on their feeding grounds, and, though not fifty feet from our boat, did not appear to notice us.

It was in the Fall of the year, the birds were mostly young. For several minutes we watched them washing and pluming, diving and feeding, and then spinning around like downy balls on the water, uttering at times their peculiar notes.

The plumage of the birds, old and

young, was not so brilliant as it would have been in the Spring, when they are decked out in their almost gorgeous uniform.

It is not often they are caught in this way. After having watched them sufficiently, it took but a second to destroy the picture, as the two barrels of our gun rudely startled them.

They come in the Spring, as soon as the ice is out of the ponds, and commence to build their nests in April. A hollow tree is their favorite spot, and well up in the tree. They sometimes will enter by what appears to be a very small hole in the trunk, and go down, four, or even six feet until they find a solid spot to build their nest upon. They carry some twigs or grass, and line the nest with a thick felt of their own down, which becomes so matted that the eggs can be lifted up in it as if it was a felt hat. We have never known any nests except in a hollow tree or stump. If the first nest is broken up, they will lay a second, and again, if that is robbed, a third time.

The largest number of eggs found in a nest as stated by reliable parties is eighteen. Eleven to thirteen is the usual average, and late nests (second or third) rarely have more than eight or nine.

If the first nest is destroyed, they will not desert the neighborhood. A friend of ours found a nest on the Passaic River and took the eggs, but having pity on the old birds, he carried back a dozen of common duck's eggs as a fair exchange. The duck continued to sit until some one, seeing the nest, carried off the eggs. In a few days, our friend was invited to see a brood of young Wood Ducks at a neighbors, who had built them a beautiful house and was very proud of his prize. Our friend said little, but smiled a grim smile as he told his neighbor that it would not be necessary to pinion the young ducks, as they would never go far. As they grew they developed into the most common of

common ducks, of every variety of color.

They will build at a long distance from the water if they find a suitable tree, and when they hatch will carry their young one by one in their bills to the water, until they have the whole brood there. Formerly a Mr. Dickerson collected many eggs each year and set them under common barnyard ducks. He was very successful with them. The writer has bought many pairs from him.

They will lay in confinement if a hollow log is provided, and sit and hatch as well as the tame ducks.

Sometimes the owner would exchange the Wood Duck eggs with a common duck, but it seldom happened that the Wood Duck failed to bring out her brood. A farmer in Ocean County, N. J., found a nest of eggs and set them under a hen and was successful in raising several young ones, which proved to be quite tame. We have seen them flying around the town (having been left unpinioned,) and they always returned to their home. Some were sold, but a dog destroyed the others. The young ducks are very pretty, and when startled they will fairly run on top of the water, their feet going so fast as to make the water buzz.

I have known the Wood Duck, when wounded, to dive and hold on to the grass at the bottom for what seemed to be five minutes, until I had moved the boat some distance and reached down with an oar to bring up the bird. The circumstance brought to my mind the Divers (ducks) on Lake Geneva in Switzerland, which were quite tame and lived near a bridge where visitors would throw grain in the water and they would dive to the bottom and pick up the grains. The water being perfectly clear, allowed every motion of the duck to be seen, and we were astonished to see how long they could remain under water, diving from ten to twenty feet, and perhaps even deeper.

In the Fall you will see the ducks eating acorns under the trees on the edge of the water, and, as they hear the acorns drop in the water they will go for them. I have heard of gunners snapping pebbles with their thumbs into the water near trees to decoy the ducks. In keeping them in confinement, it is necessary to give them plenty of green food and gravel.

The Mandarin Duck of China is similar to the Wood Duck in size and is even more brilliant in color. It is considered a sacred bird. One hundred dollars and even more has been paid for a pair of these birds.

Having in former years kept many Wood Ducks, the writer learned to admire them for their extreme shyness. They would prove a valuable addition to the poultry yard. They are strictly monogamous in this section of the country.—*B. B.*

Michigan Notes.

From several well filled pages of my note book, I take the following, perhaps of not much interest, but still sufficient, I hope, to show that a change of base from Maine to Michigan has not interrupted my work.

I am surprised to find the Bald Eagle (*H. leucocephalus*) so common in this locality. At the Tabico Marshes, some eight miles from here on the Bay shore, this bird has frequently been observed and on Oct. 7th, three were seen at one time on a tall dead pine near the edge of the marsh. Yesterday a fine adult bird was noticed hovering high in the air above the city.

The Carolina Rail (*P. carolina*) was very plentiful at these same marshes and one might almost imagine himself on their favorite grounds of the Atlantic coast. By the first week in October, not a bird was to be seen, the cold weather having hurried them off on their Southern journey.

The Herring Gull (*L. argentatus smithsonianus*) is now plentiful on our river. During the Summer months none are seen; but with the annual Fall migration up the Saginaw River of the perch, bass and other fish, they appear in large numbers, together with the Bonaparte Gull (*L. philadelphæ*); both of which species as also the Common Tern (*S. fluviatilis*), frequent the sand-bars of the Bay shore at this season of the year in large numbers; in fact, often visiting several breeding places of the Herring Gull and Common Tern on the Maine coast—I thought there could be but few birds left. However, I find myself very much in the wrong.

The numerous lumber piles, with which the banks of our river for miles are lined, appear to afford very suitable breeding places for the Barn Swallow, House Wren, English Sparrow and Robin, while the Crow Blackbird and Hairy Woodpecker consider it a good feeding ground.

In the O. and O. for July, 1882, I cited the capture of a Black-backed Woodpecker (*P. arcticus.*) Nov. 17-22, on the Pine River, in this State. The species has since been noted Sept. 26 at Bay View on the Bay shore and I should not be surprised if we soon learn of its breeding in the southern peninsular. The bird is not so rare here as is generally supposed.

I am not aware that the Surf Duck (*P. perspicillata*) has ever been given as a bird of this State. Dr. Morris Gibbs in his list, published in 1879, does not mention it, the other two species of this genus being given as rare. I would therefore add it to the list of Michigan birds, from a specimen taken at the mouth of the Saginaw River. The bird was in the possession of a very small boy with a very large gun and a very good string of ducks, who informed me that he took it over decoys at the place stated. It was at once recognized as the familiar "Horse-head Coot" of the Maine coast, in good plumage, with

the local and auricular patches very distinct. The genus *Œdemia* are not strictly maritime ducks, as I have frequently taken both the Black Scoter and Surf Duck on the inland waters of Maine, and, contrary to my experience on the coast, where they savor strongly of "poggy-chum," have always found them excellent eating.

Since writing the above, I have purchased at one of our markets a pair of ducks, one of which proves on examination to be a young female Surf Duck, the other a female Black Scoter.—*N. A. Eddy, Bay City, Mich.*

YELLOW RUMP WARBLER. On the 15th of May last, I winged a Yellow-rump Warbler (*Dendroeca coronata L.*) and, as it was very slightly wounded, I put it in a cage, in order to try whether it would live in captivity. As soon as it got used to the cage, it seemed quite contented, hopping incessantly from perch to perch, and uttering at the same time a harsh, monotonous "tweet." I offered it every kind of food, but the only things it would eat were hard boiled eggs and cooked beef, chopped up fine, of both of which, especially the yolk of the eggs, it was very fond. It also ate a little canary seed, but it did not seem to like it, and swallowed it shell and all. It lived in this way—seemingly in perfect health, and with its wing healing fast—for two weeks, when one morning I observed it sitting on its perch looking dull and stupid, and every now and then giving a spasmodic shiver. I took it out of the cage and held it near a fire for some minutes, when it seemed completely restored. That evening, however, I noticed it put its head under its wing much earlier than usual, and the next morning I found it on the bottom of its cage, dead.—*W. L. Scott, Ottawa, Canada.*

LARGE SETS OF EGGS. W. D. Hills, Odin, Ill., writes that he found a Quail's nest with thirty eggs and one with twenty-eight.

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

The notices which have appeared in the recent numbers of our magazine, as also the valedictory address of Mr. Wade, would prepare our readers for the change which begins with this number.

Those of them who possess the issue which heralded the last change, (March '81,) will find there a complete history of the early struggles of the magazine. Since that time, under the careful guidance of Mr. Wade, it has clearly advanced in position and usefulness. We can only hope that the present may be another step in the same direction, and be the commencement of a still more vigorous and active existence.

We are convinced that there is a field for a journal such as we hope to make the Ornithologist, and we think that sufficient support may be obtained for it to warrant the enlargement we have now made. In our efforts to obtain that support, we ask the co-operation of all who take an interest in Bird-life.

In so far as the magazine is made a means of bringing together the observations and experiences of the many students of nature scattered widely over our broad land—is made a chronicle of their researches, and is able to collect within its pages their notes for the information of all—so far does it fulfil the object of its

existence. But its usefulness extends still further, for by the fact that its readers have within its pages such a means of spreading abroad what they themselves have learnt, it will encourage systematic observation and careful records. Its editor considers his duty to consist in "shaping the collected information of others," rather than pretending to supply anything of his own. For this end, he invites the contributions of all those who have in the past, through its pages, added their observations to the ever increasing knowledge of ornithology—assuring them that the pages of the Magazine will always be open to record anything on the subject of Bird-life, which bears the impress of careful observation, and shows an intelligent appreciation of the Science.

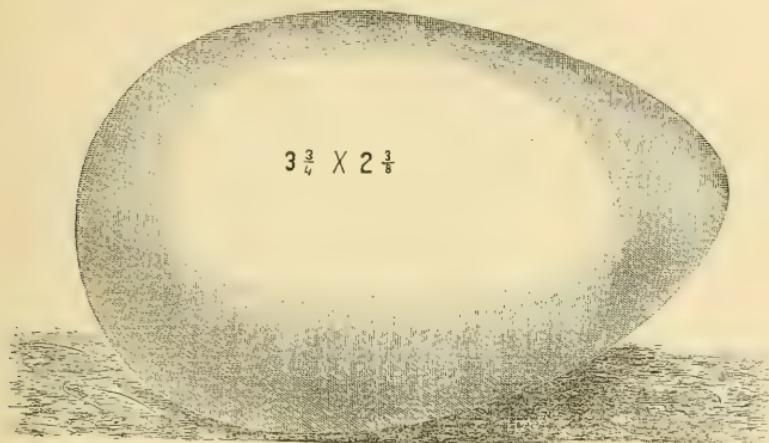
In this effort, the editor asks the support, not only of the present subscribers, but of all in America or Europe, who consider the systematic observation of nature a thing to be encouraged and helped forward.

Sandhill Crane (*Grus canadensis.*)

The Sandhill Crane was first noticed by me in this township about the 15th of April, 1842. In this part of the State it is never common, and I have not met with it outside of this neighborhood, since the date above given. I find on looking over our Michigan Bird Catalogues, that this Crane is nowhere common within the limits of our State, excepting at Petersburg, Monroe County (Lat. 42 N.) where it is given by Mr. Jerome Trombley, a reliable and accurate observer, as a common Summer resident.

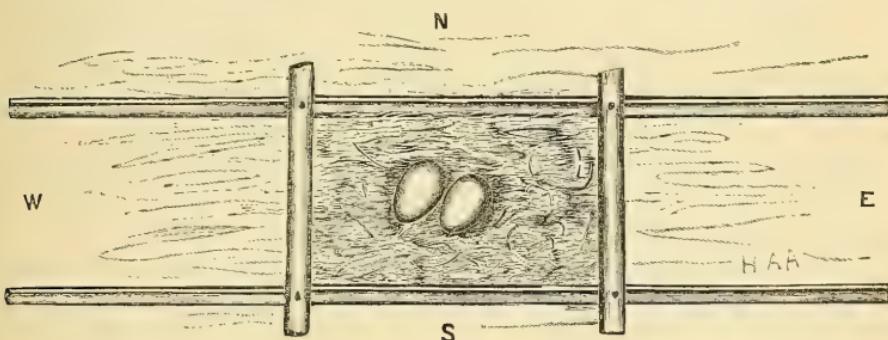
A nest was found (the only one I ever saw) on the 8th of June, 1879, by a friend of mine living near Wolf Creek Marsh, about two and a half miles from my residence. I was not able to visit the place with him until the 21st, when we found that the bird had hatched her chicks and left the premises, leaving us only the emp-

ty shells. These were carefully saved. $2\frac{3}{4}$; the remaining one was a trifle smaller. The one represented here measured $3\frac{3}{4} \times 2\frac{3}{8}$. The nest was situated in the open



EGG OF SANDHILL CRANE—EXACT SIZE.

marsh above mentioned, and was placed on a hand rack used by farmers for carrying hay to the stack in wet seasons. It was about 12 feet in length by $2\frac{1}{2}$ in width, and



NEST OF SANDHILL CRANE.

was made of poles about $2\frac{1}{2}$ inches in diameter. A small quantity of hay was left on the rack when used the previous year, which had settled down to a level with the top of the instrument, and on this platform the eggs were laid. The rack was lying flat on the surface of the marsh.

DATES OF ARRIVAL OF SANDHILL CRANE IN LOCKE FOR TWENTY-SEVEN YEARS.

Feb. 19, 1857.	Apr. 8, 1866.	Mar. 27, 1875.
Mar. 19, 1858.	Mar. 25, 1867.	Apr. 8, 1876.
Mar. 16, 1859.	Mar. 13, 1868.	Mar. 30, 1877.
Mar. 8, 1860.	Mar. 28, 1859.	Mar. 15, 1878.
Apr. 2, 1861.	Mar. 31, 1870.	Apr. 9, 1879.
Mar. 27, 1862.	Mar. 9, 1871.	Mar. 30, 1880.
Mar. 31, 1863.	Mar. 28, 1872.	Mar. 29, 1881.
Apr. 12, 1864.	Mar. 19, 1873.	Mar. 1, 1882.
Mar. 20, 1865.	Mar. 20, 1874.	Mar. 13, 1883.

—Dr. H. A. Atkins, Locke, Michigan.

The Marsh Hawk and Its Eggs.

PART I.

One June morning, while I stood in a barn-yard by the side of a farmer with a loaded gun in his hands, watching a pair of *Buteos* lazily circling overhead, a Marsh Hawk came skimming over the wall, and picking up a chicken, was away with its quarry before the slow rustic battery could be brought to bear. It is for such occasional forays that this useful harrier is shot by the average farmer; the quail-shooter empties a shell of No. 10 shot at him when he comes within range, while the country boys, marking down the nests, wring the necks of the young Hawks and get fifteen cents apiece for them from the town clerk, in accordance with the frequent votes in town meeting of a bounty on all "Crows, Hawks and Owls." Hence Marsh Hawks are decreasing in numbers in New London County, and I know of three marshy meadows, near by, where they used to breed yearly, over which no harrier's wing has brushed for many a day. What the *Buteos* do for us in keeping down that great nuisance, the red squirrel, the Marsh Hawk also accomplishes in the line of ground rodents and vermin. And there are some observant farmers who have seen him on a still hunt, slowly sailing along just over the tops of the huckleberry bushes, who appreciate his services, as is shown by the local names given him in Connecticut of "Mouser," "Mole Hawk," and "Snake Hawk."

In July, '74, when crossing a range of bare upland pastures, I was startled by a confused shadow of wild wings, and had barely time to snatch my little tan terrier which was following me, from the grasp of a pair of large Marsh Hawks. For many minutes the baffled Hawks followed us, swooping down with angry screams near enough to be struck with a cane. Carrying the dog to a place of safety, I came back to a brushy marsh in the centre of

the pastures, and found four young Hawks that never knew how near they came to having a meal of imported terrier. The dog weighed nearly four pounds, and that he could have been carried or dragged into the nest by the old birds, we know from recorded instances of the power of levitation given by *Buteos* and Fish Hawks. The nest, which was a bulky affair, seven inches high and fifteen inches in horizontal diameter, was taken home and is still in good condition. Nests of slight pretensions are often met with, and I have taken eggs from a mere depression in dry sphagnum moss. In the last case, however, the over-harried bird sought concealment for her clutch by making no nest. The large nests seen, if not built to avoid submersion by water, are the results of nesting in the same spot for a series of years. The account given above, was my first introduction to a pair of Marsh Hawks, from which I took several sets of plain eggs, in sets of four and five. Later, from other Hawks of this species, I took sets of three, four, and five unmarked eggs. The eggs when first laid are greenish blue, fading before the clutch is complete to the "dirty white," which is given by closet oologists as the true color of the eggs. I had often heard inquiry for marked sets and for sets extreme in point of numbers, but not till '81 and '82 did I meet with these desiderata.—*J. M. W., Norwich, Ct.*

Our Northern Raptore.

March 20, found me in a logging camp in northern Maine, at the headwaters of the Magalloway, to spend a season collecting in that vicinity. My special object was to fill a vacancy of sets of *Raptore* in my cabinet.

After a few hours' search in the camp, I secured the services of a Canadian Indian, who informed me he knew of an Eagle's nest, and would lead me to it sure; also knew of several "Hoot Birds" nests. (the name he used for Owls.)

I thought myself lucky in securing such valuable services. We began our expeditions the next day, returning to camp each night, when possible, as the weather was quite cold.

March 23, found nest of Great-horned Owl in a thick fir, with top broken off about twenty feet from the ground. On this stump was placed the nest, which reminded me of a Heron's in shape and texture.

It contained two eggs, nearly fresh, which seemed to show these Birds did not breed quite so early as in the more southern New England States.

March 27, while passing a large birch, noticed a hole about three feet from the ground. Examination proved it to contain a Saw-whet Owl, which we let remain.

April 4, took provision for a longer trip from camp, and after two days hard walk, discovered the Eagle's nest. It proved to be that of a White-headed Eagle, resembling an Osprey's in size and materials. It was placed in the crotch of a lightning scathed hemlock, about thirty feet high. The nest looked as though it must have been occupied for many years, as the heap of chaff at the foot of the tree would testify. After a great deal of expert climbing on the part of my companion, the set of three was secured. Even at that early date, incubation was greatly advanced.

April 6, I again visited the hole where we had discovered the Saw-whet Owl, and was agreeably surprised to find it tenanted as before with the addition of a set of two eggs; average dimensions 1.05×90 .

April 10, visited the east side of Mt. Katahdin; noticed, while pitching camp, a pair of Duck Hawks flying around, evidently annoyed at our presence. Thinking they had a nest in the vicinity, we determined to spend a while in searching for it. Jo (my man) came into camp one night and reported that he had found an Owl's nest, and that the Owl was the largest he had ever seen. Comparing it with skin

of the Great Horned Owl, he said it was lighter plumaged and had not any horns. Thinking it might be a Barred Owl, I inquired if the eyes were black. "No, they were black and yellow." As the nest contained no eggs, only two young, I did not take the time to examine, but it has since been a question with me whether that was not the nest of the Great Grey Owl.

April 14, found the nest of the Duck Hawks on an easily accessible ledge on a bluff on the east side of the Mt., partly screened by a few low cedars.

April 25, found the nest of a pair of Goshawks, on top of hemlock with top also broken off. The four eggs it contained averaged 2.30×1.85 .

May 2, found the nest of a Broad-winged Hawk in a large birch tree, twenty feet from ground. It contained four eggs; nest something like a Crow's in size and structure.—*F. H. C.*

Colorado Notes.

EXTRACTS FROM MY NOTE-BOOK—PART I.

BREWER'S BLACKBIRD (*S. cyanocephalus*) May 26, found 2 sets, 3 eggs; 1, 4 eggs; 1, 2 eggs; fresh. The birds had just begun laying. Many new nests were found completed, but without eggs. They were in low pines, about five feet from the ground, near a house and corrals. Nests quite large, composed outwardly of small stems of sage, grasswood and pine twigs. Inside of this, a thin coating of mud, mostly at the bottom, lined with horse hair, rootlets, etc.

LONG-CRESTED JAY (*C. stelleri macrolopha*) May 26, 1 set four eggs; fresh. Nest in same position as Brewer's Blackbird. Composed of fine, soft grasses and without mud.

GRAY-HEADED SNOWBIRD (*Junco caniceps*) June 8, 1 set 4 eggs, fresh. June 22, 5 sets 4 eggs, fresh; 4 sets 4 eggs, large embryos; 1 set 2 eggs, 2 young birds. July 4, 3 sets 4 eggs, fresh; 2 sets 4 eggs,

large embryos; 4 nests containing young birds nearly able to fly. July 6, 1 set 4 eggs, fresh; nest placed in a small pine, three feet from the ground, in a heavy bunch of timber; July 18, 2 sets 4 eggs, fresh; 1 set 5 eggs, fresh. This is the first and only set of 5 eggs of this species I have ever found.

AMERICAN TITLARK (*Anthus ludovicianus*.) June 24, shot a female, with partially developed eggs.

July 25, a friend told me he had found a nest on the ground with four pretty, dark-colored eggs. He was going to take them up for me, "but the old bird fluttered around and felt so bad," that he didn't. To-day I got him to go with me to the nest, and, alas! no eggs, but four chicks instead. As I expected, it was a Pipit or American Titlark. I took the nest, substituting a handful of dry grass. It is entirely of dry grass, lined with fine, wiry grass. Outer diameter, five inches; height, two inches; inner diameter, two and one-half inches; depth, one and one quarter inches.

PINE GROSBEAK (*P. enucleator*.) While on my way to the Pipit's nest, a pair of Grosbeaks commenced flying about, uttering their peculiar notes. Not having time to watch them and the female being the handier, I shot her and went on. The *gula* being unusually puffed out, I examined it and found it was filled with berries and small green larvae. Evidently they had young near by. Since then I have seen a number of pairs ranging along near timber line.

RED-SHAFTED FLICKER (*C. auratus Mexicanus*.) June 27, 1 set 5 eggs, incubated eight or ten days.

STRIPED-BACKED THREE TOED WOODPECKER (*P. tridactylus dorsalis*.) July 10, 5 young birds.

ARCTIC BLUEBIRD (*Sialia arctica*.) July 15, 5 young birds.

ROBIN (*M. migratoria*.) June 27, 1 set 3 eggs, incubated 6 or 7 days. Robins

are not as musical here as in the East. Although abundant, I have listened in vain for their "kill 'em, cure 'em, kill 'em, cure 'em, physic."

WESTERN YELLOW-BILLED FLYCATCHER (*E. difficilis*.) July 4, 1 set 4 eggs, fresh. Nest in bank of railroad at Murphy, two and one-half miles below here. Ground color creamy white, with fine dots of black and lilac, and larger spots of pale lilac, generally distinct, but in some places blended together, and tending to form a ring about the larger end. Average, .60×.70. Nest mainly of moss interwoven with rootlets, grass and small pieces of tow string. On account of its position it is one-sided. Outer diameter: longer, five inches; shorter, three and one-half inches; height, two and one-half inches. Inner diameter, two inches; depth, one and one-eighth inches. July 18, 1 set 3 eggs, eight or nine days incubated. This nest was about half a mile from where the other was found. It was about half way up a cut bank of hard wash, in a small cavity, almost entirely of roots and strips of bark from roots, lined with a small quantity of grass. Outer diameter, three and one-half inches: height, two inches: inner diameter, one and three-quarter inches; depth, one inch. Eggs same as above described. (Dr. Coues, in his Birds of N. W., gives the eggs as pure white, unmarked. One of the parents of the first set was very kindly identified by Mr. R. Ridgway.) D. D. Stone.

Short-eared Owl.

In the August number of the O. and O. you give Mr. H. A. Kline the credit of giving the most interesting information respecting the Short-eared Owl so far placed on record. You would not have made that assertion if *Familiar Science* had not died out when it changed hands. I had completed an exhaustive history of all the birds of prey of N. E., a part only of which was published in that magazine.

My article (unpublished) on that Owl is full and complete. Some thirty years ago a nest was found some half mile from my office among the bogs in our meadows. The nest was on the top of the bog and composed of fine grass. It was within a few rods of the cart path and the bird could easily be seen as we passed. She would allow us to approach very near before rising from her nest, would fly a few rods and then hop along in the grass snapping her mandibles. There were four eggs in the nest. She was captured by placing a snare over the nest attached to a long cord. When she returned a sudden twitch on the line secured the bird. I took her some half mile from the nest and let her go. She flew directly back to her nest. I suppose on her passage north to breed she was wounded and laid her clutch of eggs here. She had no mate and the eggs never hatched. I could not discover any signs of injury from examining her, or in her flight.—*Wm. Wood.*

“ Brief Notes.”

THE RIDGWAY ORNITHOLOGICAL CLUB of Chicago, met Dec. 9th, at the Academy of Sciences. Donations of skins and books were received. Mr. B. T. Gault read a paper on “The Titlark Sparrow,” (*Passerulus anthinus,*) describing for the first time the nests and eggs, illustrated by specimens, as was also a paper by Mr. H. K. Coale on “The Genus Zonotrichia,” including the record of the recent capture of *Z. querula* in Wisconsin.

ONE-LEGGED BIRD. Probably every collector who shoots many birds, not unfrequently obtains one with but one leg, the other being lost by some accident and usually by shot. A very peculiar case came under my observation. I had a lot of Kittewake Gulls, and sold one to Mr. T. Adcock of this city. A few days afterwards he returned and asked me if I had noticed that one Gull had but one leg. Upon my answering in the negative he said he had

brought the body down for my inspection. It had but one leg and there was nothing to show that it ever had any portion of another one.—*Fred. T. Jencks, Providence, R. I.*

A fine specimen of the English Pheasant (female) has been handed in to us by Mr. George Arms of Pawtucket. It was shot at Seine Pond, Great Yarmouth, Mass., on Dec. 25th.

THE ENGLISH SKYLARK (*Alauda arvensis*) appears to have been successfully acclimated on this side of the Atlantic. Eighty-four birds were set free two years ago on a farm in New Jersey, and may now be seen apparently at home and quite happy. With reference to this notice, which appears in the *Scientific American* of Sept. 22d, Armin Tenner, writing from Berlin, Oct. 6th, says:

“The Skylarks were first brought to America in '73 by myself, then Secretary of the Cincinnati Acclimatization Society, and set free in the Spring of '74 at Burnet Woods Park, near Cincinnati. They have since returned, or, at least, some of them, and every Spring chosen for abode a summit in the vicinity of the park named. Contrary to their usual habits in Europe, these Skylarks have selected hilly ground as their favorite place of abode, whereas in the old country, the Skylark generally inhabits meadows or a level country. The Skylark is a migratory bird; only in rare instances small numbers remain over Winter in northern climates.”

Will any of our correspondents in New Jersey or Ohio report whether they have seen the English Skylark, and under what circumstances?

THE BRITISH NATIONAL COLLECTION OF BIRDS was opened at the South Kensington Natural History Museum, London, on the 8th of October. It promises to become one of the best ornithological collections in the world. The bulk has been brought from the British Museum, but large additions have been made. The museum authorities have commissioned agents to hunt up contributors from all parts of the globe. In the arrangement of specimens, great alterations have also been made. Instead of being exhibited in the old wall cases, the different species of birds are placed in classes in large alcoves

along the hall. Where practicable, the history of each group is shown by the nest, eggs, young and sketches of the birds, being placed along with the specimen in full plumage. In the centre of every alcove stands the most striking representative of the family, and, as far as possible, the popular name of the bird is added to the scientific. The hall, though open to the public, is as yet by no means complete.

A fine specimen of the European Gold Finch was taken in company with a pair of our natives at Falmouth, Mass., May 1, '83, by *F. J. C. Swift*.

W. J. B. Williams, Cambridge, N. Y., found on May 27th, a Bluebird's nest containing seven fresh eggs which are now in his collection.

Wm. Hyde, Pawtucket, R. I., lately brought us a set, eight in number, taken by him in May, '82. It is now in our possession.

Our Former Editor.

We congratulate our predecessor on his elevation to the position of Editor in Chief of *Cotton, Wool and Iron*, and *Boston Journal of Commerce*. In its special sphere this is the leading paper of the world. Mr. Wade's many friends among the readers of the O. and O. will look upon his prosperity with much satisfaction.

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

SPECIMEN JANUARY NUMBER.—We have received many letters from old supporters of the O. and O., and from some who are just becoming acquainted with the magazine, expressing the pleasure it has given them to see it in its new and enlarged form. Their appreciation will be an encouragement to us in our efforts to make the magazine all that its best friends would desire it to be. This issue (which is sent to every subscriber on our lists) is, for the most part, the same as the specimen, and must be considered as the permanent form of the January number. A few of the specimens, still in the hands of the publisher, will be forwarded to any address sent us by *Subscribers*. We are pleased to report a large number of new names on our subscription lists—still there is room for more.

In our endeavor not to overlook any person known to be interested in Ornithology, it has probably happened that duplicate copies have been sent to many. Such of our friends as have copies they do not require, will oblige by remailing them to any of their acquaintances interested in the subjects treated. Our thanks are due to many friends who have sent us lists of parties to whom to send the specimen number. This is the best means of reaching those interested in our subjects, and will be continued as opportunity may present.

EVENING GROSBEAKS.—*E. S. Stebbins, Minneapolis, Minn.*, reports having seen a flock of about fifty Evening Grosbeaks, on Nov. 7th. He says: "This Grosbeak is always with us in Winter, often coming within the built up portion of the city, but I have never seen them so early before."

ALBINOS.—*S. W. Comstock (Greenfield, N. H., Society)* reports several varieties having been noted at Greenfield. As Albinos are freaks of nature not uncommon, we think it well only to place on record such as have some unusual feature. Full identification is also advisable.

LARGE SETS OF EGGS.—*Howard H. McAdam, Oak Bay, N. B.*, says: "I have taken the following large sets of eggs: 5 eggs Black Snowbird, 5 Song Sparrow, 6 Carolina Waxwing, 6 Goldfinch. I also took a set of White-throated Sparrow and Trails Flycatcher, rare nests here. Snowbirds unusually plentiful this season; I have taken thirteen sets."

CLARKE'S CROW.—*Dr. J. G. Cooper, Haywards, Cal.*, says: "The occurrence of Clarke's Crow at Vermillion, Dak., given in O. and O., (VIII, p. 84,) show that they rarely straggle over 200 miles east of the mountains. This is almost the same distance east as I shot two in Oct., '57, in Nebraska, as given in Baird, Cassin and Lawrence's report, (P. R. R. Rep. IX.) As I saw none between there and Fort Laramie, I supposed they got lost in the fogs then common."

C. C. Richards, Norwich, Conn. Does our correspondent refer to the Ruby-crowned, or the Golden-crested Kinglet? Read the descriptions of both given in "New England Bird Life," Part I, pp. 71-76.

CLEANING WHITE FEATHERS.—*Mrs. Morse, Franklin, N. H.*, writes: "I would say, for the benefit of amateurs, that a Taxidermist of special note in this State taught me the use of Calcine for cleaning blood from white feathers, and I have always found it the best of anything so far. Sprinkle it on and brush with the fingers, sometimes working it over several times. Such manipulation has always proved successful for blood stains on the choicest of birds."

Allan Woodbury, Inglewood, Ill., writes: "Here is a receipt I used with good results—Four ounces of white soap cut fine and dissolved in four pints of hot water, adding a few drops of Aqua Ammonia. Apply the solution to the feathers with a soft sponge. afterwards wash with clean hot water. Dry with Plaster of Paris, keeping the feathers in motion."

The above are selected from numerous replies to our question, for which we thank our correspondents.

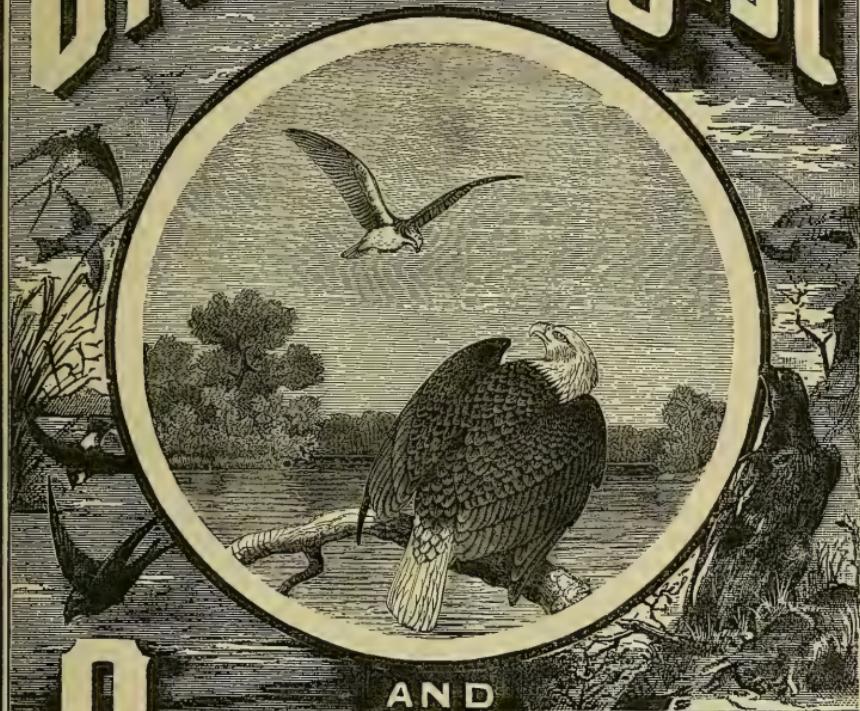
ARTIFICIAL STUMP.—Boil papier mache to a fine pulp; add a weak solution of glue and flour; mix well and place on a sieve to drain. When well drained and about the consistency of dough, it is ready for use. Make base of wood or other material; give coat of glue and cover with preparation. For rocks it can be moulded as desired, and when dry covered with glue and mica sand. Stumps should be painted with burnt umber and decorated with natural moss. The base can be covered with either Moss, Shell Sand or Smalts. A little experience and ingenuity will produce fine effects.

FEBRUARY, 1884.

VOL. IX.

No. 2.

Ornithologist



THE
OLDEST

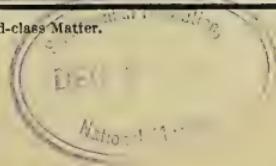
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OLDEST

Established 1875.

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Entered at Pawtucket Post Office as Second-class Matter.



"I consider it a Magazine which *every* true ornithologist, be he "full blooded," or only an amateur, should have at hand, and I will endeavor to extend its circulation among those of my acquaintances interested in the science."

CHAS. B. WILSON, Colby University, Waterville, Maine.

THE ORNITHOLOGIST AND OOLOGIST.

Vol. IX } Commenced a New Series, enlarged to twelve pages of
No. 1, Jan., 1884. } ORIGINAL MATTER.

NOTICES FROM THE PRESS:

The ORNITHOLOGIST AND OOLOGIST is the title of a magazine published by Frank B. Webster, at Pawtucket, R. I., which will be of interest to those interested in ornithology. A feature of the numbers for this year will be an account of the investigations in the Mississippi Valley migration.—*Brooklyn Eagle*.

The cover is very characteristic as well as artistic, the typographical execution good, and the matter of decided value to all students of natural history, especially bird lovers. This little monthly of twelve pages has improved greatly in appearance since its establishment, in 1875. The pages of the present number exhibit a very fair engraving on wood of our most lovely swimmer, the wood duck, so familiar to Worcester county students as the only duck which perches on trees; and two of the eggs and nest of the Sandhill Crane, known to us only from the further side of the Mississippi river, although its name is frequently misapplied to our large Blue Heron.—*Worcester Daily Spy*.

For eight years this monthly has found

enough to profit and interest without exhausting its subject. The matter is of decided value to all students of natural history.—*Syracuse Daily Journal*.

A very neatly printed, well arranged magazine, containing much of interest to students and lovers of the subjects treated. The publisher is well known as an adept in taxidermy and his collection of specimens is rated very high in such lists.—*Pawtucket Gazette and Chronicle*.

The aim of the magazine is to instruct all those who are interested in bird life. There is quite a field for such a periodical among a certain class.—*Newport Daily News*.

All interested in birds and birds' eggs will enjoy this magazine.—*The Journal, Jacksonville, Ill.*

A specimen number was issued about December 20, 1883, and contains the usual number of good articles and notes. There is doubtless room and need for a distinctively amateur journal like this, and we cordially wish it success.—*The Auk, January, 1884*.

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Commencing with Jan. No. } } TEN CENTS.

FRANK B. WEBSTER, Publisher, Pawtucket, R. I.

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VOL. IX.

PAWTUCKET, R. I., FEBRUARY, 1884.

No. 2.

An Experiment in Bird-Taming.

THE BLACK-CRESTED FLY-CATCHER, (*Phainopepla nitens.*) is quite a wild bird, always keeping at a good distance, and as far as possible, out of sight. Even when nesting and hatching its young it leaves its nest while the visitor is yet at quite a distance. Like most other birds, however, it cannot appear quite unconcerned, but with raised crest it flies at a distance, and whistles its toot! toot! of alarm, when the egg-hunter approaches the nest, but its fear of man is too great to permit it to come near to defend its treasures of smoky eggs, or callow young.

Till well able to fly, the young birds cling fast to the nest in motionless silence, if disturbed. They clutch hold of the fibres of the nest with their claws, and stick fast, even though the whole affair be quite inverted, and it requires a good deal of patience to remove them from the nest. Nor do the young ones ever cry out, if removed. From first to last they are perfect heroes and stoics.

Notwithstanding the apparently unconquerable wildness of this pretty bird, I determined to try the effects of persistent and uniform gentleness and kindness, and see if it might be tamed. A nest was found with a pretty pair of well-grown young ones, so large as to nearly fill the nest. At that age they looked very much like the young of the White-rumped Shrike, but the triangular, bare spot on their heads, where the crest-feathers were to grow, was distinct. So nest and young ones were taken home. They grew apace.

They fed on many things, and were raised on such food as was given young Mockers.

This pair was a loving couple. During their baby days they were never long separated. Whenever alone they worried and called, till allowed to get together, and always, when at rest, either during the day, or at night, they would snuggle up sideways together as closely as possible, in a most affectionate manner, with little twitters of comfort and peace, and never once did they go to sleep in any other way. In a few months, while they were yet but baby-birds, they began to pick at threads and fibres, and to move them about in circular shape, as if to make a nest. But, alas! soon the female began to have attacks of nervous fits, starting up with a shriek, and becoming stiff for a moment, and at length the fits deepened into spasms of longer duration, from which she would recover with difficulty, and with laborious gasps and pants, till at length, after such a spasm, she quietly, and without pain, or motion, died. The survivor still lives. It has become so tame and familiar that the instinct of fear is apparently lost. It is never so happy or contented as when perched on my shoulder, nibbling my ears, or when standing on my finger, being fed or talked to. In this happy captivity, it still retains its pretty baby ways of fluttering its wings while being fed, and feigning inability to help itself to food, although no longer a young bird. But while so gentle and apparently helpless, it is a brave little hero; its lion heart fears no bird of twice its size, but, facing its enemy with

admirable bravery, it snaps its little bill at him. Even the swift Mocker never dares to touch it.

Still another peculiarity is the childish persistence with which it insists on going to rest at night always on the same perch. Having free range of the room, it chose the leather side of a common wall-pocket as its perch, and now it will not be content anywhere else, but flies about and cries till allowed to go to its chosen place, when it settles down with contented whisperings. After dark it is taken on a finger and put in its cage in satisfied peace.

Though professedly a warbler, it sings but very little. In the morning when coffee is being ground for breakfast, the music of the coffee-mill always charms it into song, and at other times it occasionally warbles a little, the notes being always low and sweet, and sung in a quiet, happy way, yet as a singer it is not conspicuous. But as a loving little pet, whose perfect love for its master and mistress has cast out all fear, and yet whose brave heart fears no other bird, it is a pronounced success.—*W. G. Wright, San Bernardino, Cal.*

Traill's Flycatcher.

(*Empidonax pusillus Trailli.*)

Previous to 1878, when I found its nest, this bird was unknown to me. I continued to find one or two nests yearly up to 1882, when I found eleven, and in 1883, three, in all twenty nests. Three was the prevailing number of eggs, but one nest contained four. Several of the nests when found contained but one or two eggs, so they were left that the sets might be complete; but it often happened upon a second visit that one or two, and sometimes all the eggs would be broken. I am satisfied that they were broken by the birds themselves, as the Flycatcher disposition is well developed in this species. The ground color of the eggs is creamy white. The

markings vary much in different sets; some have large blotches, spots and minute dots, others have small spots and minute dots. The markings are sparingly scattered, principally at the larger end, and present many shades of red—brick-red, reddish-brown, and sometimes a faint lavender tint.

Three sets measure as follows: .77×.56, .77×.55; .70×.56, .75×.54, .77×.55; .77×.55, .72×.56, .70×.52. June 13, 1879, is the earliest date I have found a nest containing eggs, and July 30, 1883, the latest. The eleven sets obtained in 1882 were taken between June 20th and July 8th; the three sets obtained in 1883 were taken between July 14th and 30th.

The nests, although lacking the solidity and durability of those of *Empidonax minimus*, are very pretty and interesting; outwardly composed of dried grasses—slightly agglutinated to the forked twigs which support them, bits of cobweb, and rarely a dried leaf or bit of lint. The lining of fine dried grass, and rarely a horse-hair, is very neatly arranged. From most of the nests there was hanging from five to twenty spears of dried grass, varying in length from three to ten inches, which evidently were left hanging at the commencement of building. An average nest measures as follows: Diameter, three and one-half inches; height, two and one-half inches; depth of cavity, one and one-half inches; diameter, two inches. The site of the nest was invariably the upright fork of a small bush, varying from eighteen inches to three feet from the ground. Their favorite nesting localities are low grounds, usually near a stream. A notable exception was a nest found on the top of a high hill, one and one-half miles from a stream. It was in the centre of a large tract, covered with a growth of briars, bushes, and scattering trees. The nests found one-half mile from a stream in a hill sheep pasture, differed from the others in having an abundant supply of wool

mixed with the dried grass. This no doubt was a local characteristic, as the pasture was plentifully supplied with briars to which particles of wool adhered. The birds are very shy and uneasy. Leaving the nest at the first approach of an intruder, they will secrete themselves in the nearest covert, where, uttering their unmusical notes, they give vent to their displeasure. They spend most of their time in the coverts of bushes, showing their presence by frequently uttered notes, or by being seen darting after some passing insect. After the season of incubation is over, they become rapidly silent, and, during the remainder of their stay, their notes are heard only at rare intervals. By the middle of September none of them are to be seen, as they have left for the South. Their return in the Spring varies with the season, but is usually the last of May.—
C. O. Tracy, Taftsville, Vt.

The Ruddy Duck and Its Nests.

While collecting at Santa Cruz, Cal., the past season, I found several nests of the Ruddy Duck, (*Erismatura rubida*.) The location was a salt lagoon of about forty acres in extent, encircled with a belt of tules* from ten to fifty feet in width. The nests were usually built near the centre of the tules, and just above the water, which was two or three feet deep, and were inaccessible except by wading, as the tules were too thick to allow a boat to pass through them. The nests were all constructed of dry tules; those forming the lining were picked into fine shreds and slightly mixed with down of the parents. Nests were from eight to fifteen inches high, and ten to twelve in diameter. The cavity varied in size as much as the nests, but not in proportion to them, as the highest and most firmly built of any I saw had a cavity that was only large enough to

hold two eggs in the first layer, and so shallow that the three other eggs it contained were above the level of the nest. This nest also varied from the others in having a slight covering of tules over the eggs. I first visited the lagoon and saw the Ducks on May 12th, believing they had their nests there. Not then having sufficient time to make a thorough search, I waited until the 26th, and then took a boat, and for several hours hunted unsuccessfully along the edge and through the tules where they were thin enough to admit a boat. However, as the Ruddys were still there, I made up my mind to wade and make another search. On carrying out my plans, a few days later, I was surprised on arriving at the lagoon to find only five or six Ruddys in sight. As they were males, I surmised the females were attending to household cares, so prepared to make them a call, but only succeeded in finding one nest. However, as this contained five eggs, the first I had ever found, I felt quite elated. I removed the eggs and called again on the 26th of June. Evidently I was expected, for I found the nest deserted, but on looking around in the vicinity I found two other nests, with nineteen eggs in each. I took both sets and one of the nests, the owner of which was more generous than the others, as she constructed another nest on the same site and laid ten eggs for me. I removed them on the 24th of July. Incubation was then well advanced; the embryos were about the same size in each egg, which showed the bird had changed her mode of incubation, as the eggs in the first set varied from a fresh one to five that were just on the point of hatching. The eggs were arranged three layers thick in each of the nests containing nineteen; which to me was a strange arrangement. Considering the number of eggs and their size, which in proportion to the birds is quite large, averaging 2.46×1.83 , it seems to be the

*The word "Tules," pronounced tu-les, is in common use in California for a kind of reed found plentifully in ponds and streams.—ED.

only arrangement by which the birds could cover them.

The Ruddys were very shy and it was difficult to see the parents, as on approaching their nest they would quietly slide off and swim through the tules, without making any perceptible noise. They would not rise from the water, even when a gun was fired, if there were any tules in which they could hide themselves. On visiting the lagoon in August, I surprised several families away from the tules, in which the parents invariably sought shelter, leaving their young to look out for themselves. They were unable to fly but could swim and dive well, and it was amusing to see them attempt to hide behind each other.—*A. M. Ingersoll, Alameda, Cal.*

The Marsh Hawk and Its Eggs.

PART II.

Early and authentic mention has been made of large sets of eggs of *Circus hudsonius*. But the reference on Page 115 of Brewer's N. Am. Oology (Smithsonian, 1858,) to clutches of eleven, twelve and thirteen, with their misty data, may now be dismissed from the record. Some account of a nest of seven can be found in the O. and O., Page 14, Vol. VI. Last year, in his fresh Northwestern field, Capt. Bendire took a set of seven plain eggs. The same season, I took an extreme set of seven covered with showy markings. May 14, 1882, the nest had four eggs, and it held seven fresh eggs when taken, May 21. The three added eggs were bluer than the others, but the first part of the clutch had the best markings. These were not the mere "accidental deposits of lymph," referred to by the late Dr. Brewer as liable to appear on all plain eggs. But they presented a good superficial design and the cloudy sub-shell coloring seen on average sets of Red-shouldered Hawks. May 20, 1883, secured another set of five nicely marked eggs from this pair of Hawks. In

May, 1882, I took clutches of Cooper's Hawk handsomely spotted, and on corresponding dates in 1883, from the same birds similar sets. This, with other data at hand, tends to show that the Accipiters and Marsh Hawks which lay plain sets one year will lay plain sets the next year, and that those that lay the prized marked sets may fairly be counted on to do so in successive seasons. Though this has been doubted by some authorities, with whom I still have a bone to pick, yet I can show it to be the rule among the Buteos, by extensive yearly series of eggs from the same localities. Individual shapes will also be found to obtain among the eggs of our resident Raptore. Dr. Coues says the eggs are "not certainly distinguishable" from Cooper's, (vide Birds of the Northwest, Page 337.) Yet in a series of both, Marsh Hawks can be seen to be smaller, without measurements—only now and then does a set appear to be as large as Cooper's. Our Harrier will not allow the liberties we take with the nests of the Accipiters—notably the Sharp-shinned. If egg No. 1 is taken the others will be laid elsewhere. Last season, by my merely looking at her first egg laid, though never handling it, a Preston Hawk deserted the nest, and laid the other four eggs in a remote wooded part of the marsh, where they were taken only after long and careful search.

The Marsh Hawk is, perhaps, the most noiseless of our breeding raptore. Some individuals have an intonation of the Fish Hawk, but in general the cry approaches more nearly that of the Cooper. To those who only know the subject of this sketch as the skimmer of the meadows, floating and quartering spaniel-like over brushy lowlands, he will hardly seem like a being of the upper air. Yet he has his aspirations, as we may see. In the forenoon of May 9, 1878, (an exceptionally early season,) I took three sets of eggs of Marsh Hawk in North Stonington; and in those wide meadows, where there were no trees

or woody glades for the Hawks to steal behind, the females, after being flushed and shot at, would be joined by the males and hang for hours far overhead, mere specks in the sky, seemingly above the loftiest flights of the Buteos.—*J. M. W., Norwich, Conn.*

Great-horned Owl in Iowa.

The 17th of February (1883) was cold, but being clear, we decided, in the afternoon, to take a short tramp through the woods north of the city, notwithstanding the snow was quite deep, rendering walking rather laborious. Entering the woods, we passed several large sycamore trees, from one of which flew a large Owl. As we thought it a little too early for eggs, we gave it no further consideration, but crossed the river. An hour later we returned, and stopped beneath the same tree. On looking up to an opening in the trunk some forty feet from the ground, we were greeted first by a pair of large black horns, followed by two great yellow eyes. A few seconds later, away flew the Owl, which we immediately recognized as a Bubo. The ascent of the tree occupied but a few minutes. When within ten feet of the opening, the female left the tree. The hollow I found to be about three feet in diameter and the same in height. It had three entrances: One—a small one—facing the southeast; one at the top; and the third, the principal one—and the one from which both birds flew—was a few inches from the bottom, and about a foot from the nest—if it could be designated as such, for it was merely a shallow depression in the soft decayed wood, that formed the floor of the cavity—containing two pure white eggs. Blowing showed that incubation had just commenced.

Scattered about over the bottom of the cavity were numerous bits of rabbit's fur, a portion of a cranium of a rabbit, a dozen or more tail feathers of the Owls, the foot

and leg bones of a large raptorial bird, and numerous other bones. May 2d, while passing through the woods several miles west of the city, we started a Bubo from a nest on a large limb of a white oak. Ascending it, two young Bubos fluttered out of the nest to the ground. These I secured and carried home, and have them still in confinement, (Dec. 31, 1883.) About the middle of June the horns began to appear, and by the first of August they were fully developed. Rats, mice, birds and beef (fresh) form the principal part of their diet.—*Ch. R. Keyes, Des Moines, Iowa.*

Notes from Taftsville, Vt.

While out collecting, Aug. 6th, I found a nest of the Black-billed Cuckoo, which contained three young and three eggs. One of the eggs proved to be nearly incubated, one about half and the other fresh. One week later I visited the place again. Upon my approaching the nest the young left it, but Mrs. Cuckoo had deposited another fresh egg, which was slightly flattened on one side—it was the largest one of the clutch, its shorter diameter being .89 and .88×1.27 in length; the other three measuring .86×1.19, .86×1.12, .86×1.11. The largest egg of this species which I have taken before measured .84×1.11. Four feet from the Cuckoo's nest was a Robin's nest containing four eggs. July 26th took a set of seven eggs of the American Goldfinch, and during the season several of five and six each. Sept. 6th found a nest of the Goldfinch containing four young which were just hatched. In 1882 I found a set of five Robin's eggs, it being the only set of five that I have found.—*C. O. Tracy, Taftville, Vt.*

S. R. Ingersoll (Cleveland, O.) says, in *Forest and Stream*, that a specimen of Wilson's Snipe was shot there, Dec. 22d, and three Song Sparrows on Jan. 12th, both remarkable in view of the severity of the winter.

THE
ORNITHOLOGIST
—AND—
ÖÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Ornithology and Ornithologist.

Having always been interested in the study of ornithology, the writer has taken more than an ordinary interest in the columns of the O. and O. The benefit to ornithologists of a publication devoted exclusively to this branch of natural science, is not, we apprehend, fully appreciated by all engaged in the study. Instead of thoughtlessly perusing the columns of a paper like this, year after year, readers should stop and consider what is necessary to maintain, and the many advantages to be derived from such a publication, and then in his own way each should contribute to make it a success. Although entirely unacquainted personally with the Editor of this journal, it is evident to me that no mercenary motive attends its publication. Yet it must not be forgotten that its issuance involves expense, and that no obligation rests upon the publisher, although financially able to meet this outlay. We should therefore not be tardy with our subscriptions or business patronage. But the most important thing to be remembered is this, that without the assistance of active workers in the ornithological field, this paper cannot be made a success. It is impossible in the nature of things for any one man alone, to present monthly

an acceptable paper. The theory of its publication contemplates the aid and co-operation of all sincere ornithologists and particularly reliable correspondents in different localities throughout the United States. Without this, its object can never be accomplished. By "reliable correspondents" we do not mean youth who think that to possess a drawer or two of eggs in a fancy case constitutes a *naturalist*, or who think that to have a room ornamented with a dozen mounted birds with bright plumage renders them *graduated ornithologists*, nor do we mean others engaged in collecting *only* for the purpose of having a collection "as large as any in the state." But we refer to those who have either a natural or an educated taste for this branch of Natural History—those who are interested in the study of ornithology *as a science* and who desire to assist in its development, and not those engaged in it as a pastime or play. There are many experienced and enthusiastic field workers, who are always silent and seldom heard of, whose contributions would be of great interest and value, if they would but devote two hours a month to an item for the O. and O. If anything new be discovered let it be known by all—do not be selfish with knowledge. Some time ago I incidentally mentioned a peculiar characteristic of some of the species of Humming Birds to an esteemed correspondent and was surprised to have him reply that he "had supposed that *he* had a *Patent* on that discovery." Let none of us "patent" any of our discoveries—let them be free to the use of all—conceal nothing new that may be learned about our feathered friends. Disseminate the knowledge gained by experience and let all enjoy it and have the benefit thereof. And now at the commencement of the new year, let each resolve to do his part toward entertaining and encouraging his co-workers. The O. and O. affords a way in which *one* may communicate with *all*. Let us improve

the opportunity by proper and frequent contributions, and thereby encourage the paper and benefit each other, and let everything be expressed in "Plain English."—*William C. Flint, San Francisco, Cal.*

The Blue Grosbeak, (*Guiraca cœrulea*.)

This beautiful bird, although widely distributed in the United States in the breeding season, is nowhere abundant. Perhaps it is as common as anywhere along the sparsely wooded streams and ravines in Central Kansas. For the benefit of those who have not had opportunities to study its habits in the field, I desire briefly to review my notes of this species made during the past three years.

Previous to 1881, I had observed the Blue Grosbeak only during the Spring migration, and did not really know that it was resident here. In June of that year, I found my first nest of the species. It was built in a peach tree in an orchard; was about six feet from the ground and contained two eggs with two Cowbird's eggs. The four eggs, being alike in size and shape, but so different in color, presented a pleasing contrast. When found, the nest was occupied by the female; but as I was not familiar with the species I failed to recognize the bird in the approaching twilight. The eggs, except for the size, resembled those of the Indigo Bunting. As I was three or four miles from home, I took the set, hoping to be able to identify them by my future observations. It did not take much research to satisfy me fully as to their identity.

Having now become satisfied that the species nested in this locality, I kept a sharp lookout for their nests in 1882. The males arrived about the middle of May, but I saw no females until about the first of June. On June 12th, I found a nest containing two eggs. It was built almost entirely of bits of newspaper, old letters, etc., with a few weeds; and had a lining

of grass roots, taken from the surface of plowed fields. It was built in a small wild plum bush, about three feet from the ground. The nest was near a dwelling house. I left it for the full set; but upon visiting it a few days later, I found only the scattered materials of the nest and a few bits of scattered egg shells. About this time a female (I have not yet seen the male assist in house-building,) built a nest about twenty feet from a dwelling near town. This nest was in the lower branches of a cotton-wood, six feet up. I watched it for about ten days, but the bird deserted it without laying. This nest, too, was built largely of newspapers.

The failure of the previous year made me still more anxious to succeed in 1883. My earliest record of the arrival of the males is on the fourth of May. On June 4th, I saw a female carrying material for nesting; and after carefully concealing myself, I was rewarded by finding the partially built nest, well hidden in tangled underbrush near the Kansas River. It was built upon the lower horizontal limb of a box-alder, two feet from the ground. On June 8th, the bird laid the first egg, but a day or two later a tornado wrecked this nest, with, perhaps, hundreds of others in its path. On June 15th, found a nest of three eggs, about half incubated. This nest was in a ravine in low bushes, and had escaped the fury of the storm. June 21st, found a set of four fresh eggs; June 23d, a set of three; and July 4th, a set of four, all fresh. About this time three nests were found by another local collector. Two of these contained three eggs, and the third, two of the Grosbeak's and one of the Cowbird's. I obtained two of these sets by exchange. It was now too late in the season to secure other sets; but afterward, knowing its habits, I found many deserted nests. Even during the past two months, in my hunting excursions, I have been able, from my knowledge of the construc-

tion of the nests, to mark many localities where they may be sought next season.

The Blue Grosbeak is a restless, wide-awake bird. It feeds and gathers nesting material far from its nest. This increases the difficulty of finding its abode. When disturbed it utters a single scolding note, sharp and distinct, repeated at short intervals. Only twice have I heard the male in full song. The notes, except in volume, are an exact reproduction of those of the Indigo Bunting, which it so closely resembles. The nests are rather bulky affairs, and, except in the varieties of material used, are quite characteristic. In the outer part it seems to select whatever material suits its fancy; paper, weeds, strings, bits of cotton or wool are often used. One nest was more than half composed of the cast-off skins of snakes; several had bits of the same material. The lining is always composed of dry grass roots, with some times a few long horse hairs. The eggs are of a pale blue color—which fades on exposure to light. They are about as large as the eggs of the common Bluebird, but vary much in length. The ends, too, are nearly equally rounded.—*D. E. L., Manhattan, Kan.*

Colorado Notes.

EXTRACTS FROM MY NOTE-BOOK—PART II.

TOWNSEND'S FLY-CATCHING THRUSH (*Myiadestes townsendii.*) June 6, 1 set 4 eggs, fresh. June 22, 1 set 4 eggs, 2 sets 3 eggs, fresh, 1 set, 4 eggs, large embryos. July 1, 1 set 4 eggs, very large embryos. Nest in bank of railroad, near Alpine Tunnel. July 4, 4 sets 4 eggs, fresh. July 8, 1 set 4 eggs, incubated 5 or 6 days. Nest on jutting rock in prospect hole in bank of creek.

INTERMEDIATE CROWN SPARROW (*Z. gambeli intermedia.*) June 24, 2 sets 4 eggs, fresh. July 1, 10 sets 4 eggs, fresh.

I spent considerable time hunting for their nests on the ground, but without

success. While so engaged, I found one in a low scrubby spruce about twenty inches from the ground. At this I changed my tactics and began searching the scrubs for them, and with good success. All were found in these scrubs generally and in those surrounded by willows, excepting two on the ground and one in some willows about ten inches from the ground, which was put up like many of the Red-wing Blackbird. The lowest nest was eight inches and the highest five and one-half feet. The birds take whatever is nearest for the construction of their nests. Some were entirely of dead grass, others of coarse dry stems of weeds, lined with fine grass, and others with a foundation of coarse grass and plant stems, loosely placed, upon which fine grasses were compactly woven, lined with still finer grass and horse hair.

A fair example measures, outer diameter $5\frac{1}{4}$ inches, height $3\frac{3}{4}$ inches, inner diameter $2\frac{3}{4}$ inches, depth $2\frac{1}{4}$ inches. So far as my experience extends, their nests are never placed on a branch, but saddled in a crotch or more often where the top has been broken out or lopped. The color of the eggs varies nearly as much as the nests. One set is of pale bluish green, thickly covered with reddish brown markings blended together, giving the entire egg a dark appearance and entirely covering the larger end. Measurements 90×64 , 91×66 , 91×66 , 88×65 . Another is of darker bluish green, speckled and dashed with light umber over the entire surface of two, the other two lacking the latter color on the smaller end, while the larger is completely covered by a large blotch of dark umber. Measurements 85×65 , 90×66 , 92×67 , 95×65 .

GREEN BLACK-CAPPED FLY-CATCHING WARRIOR (*Myiodioctes pusillus.*) July 16, two young birds, nearly able to fly. They show the bright yellow on the under parts when very young. Nest on the ground under the willows, composed of bark of dead

roots and grasses, lined with fine grass and a very few horse hairs. Is a very flimsy affair. Outer diameter $3\frac{1}{2}$ inches, height $1\frac{3}{4}$ inches, inner diameter $1\frac{3}{4}$ inches, depth $1\frac{1}{4}$ inches. These beautiful little warblers abound in the willow thickets, but finding a nest with eggs, unless by accident, is next to impossible.

AUDUBON'S WARBLER (*Dendroica auduboni*.) July 17, five young birds. Nest on end of a pine bough, 12 feet from the ground. Watched the parents make several trips to the nest, and then climbed up to take a look at the young ones, when they scrambled out of the nest and fluttered down to the ground. I took the nest and descended and caught one of them. At this the parents began fluttering round with wings and tail spread, uttering sharp cries, much after the fashion of a Spotted Sandpiper. Nest of pieces of twine, soft outer covering of plants, rootlets and a very little hair, lined with horsetail and a few feathers. Outer diameter 4 inches, height $2\frac{1}{2}$ inches, inner diameter $2\frac{1}{4}$ inches, depth 2 inches.

CLARKE'S NUTCRACKER (*P. columbianus*.) July 18, while at St. Louis, I saw for the first time a small band of these birds, and obtained a fine pair. During the past two weeks, I have taken about a dozen more from a flock of about thirty that have rounded up at a mine boarding house a short distance from here. At this place they are as tame and familiar as Carolina Doves around a western farm-house. They have a variety of notes, all of which have the crow twang.

LINCOLN'S SPARROW (*M. lincolni*.) Is a common bird in the thickets, but they are seldom seen in the breeding season, as they are very shy. On being started they instantly seek shelter. I have not found their nests.

ROCKY MOUNTAIN HERMIT THRUSH (*H. unalascæ auduboni*.) July 15, 1 set 3 eggs, incubated 6 or 7 days. Nest in small pine, five feet from ground, a few feet from edge

of heavy timber. Parent glided off the nest and out of sight without a note. Nest, a slight base, and sides of twigs and coarse grass stems, within a compact wall $\frac{3}{4}$ inch thick, of green moss woven in with fine straw and rootlets. It is the most solid nest I ever saw, for one made without mud. Outer diameter $5\frac{1}{4}$ inches, height $3\frac{1}{4}$ inches; inner diameter $2\frac{1}{2}$ inches, depth 2 inches. Eggs uniform light greenish blue, .66×.85, .65×.83, .66×.88

CASSIN'S PURPLE FINCH (*C. cassini*.) July 28 I noticed for the first time a pair of adults and four young, hopping about the street in front of the store. Since then I have seen them a number of times in about the same place.—D. D. Stone, Hancock, Colorado.

NOTE.—The eggs of Brewer's Blackbird and Long-crested Jay, referred to in Part I of these notes (IX p. 9) were taken at Buena Vista. Hancock is about 1,800 feet higher than Buena Vista and neither of these birds are found at the former place in the breeding season. Long-crested Jay ranges higher than Brewer's Blackbird.—D. S.

Bird Migration.

The Committee of the American Ornithologists' Union who have this work in hand, met in New York on Dec. 17, and agreed upon a plan of operations, the details of which are given by the Chairman of the Committee, Dr. Merriam, in a circular. He says: "The work will not be limited to the accumulation of records of the times of arrival and departure of the different species, but will embrace the collection of all data that may aid in determining the causes which influence the progress of migration from season to season. For the purpose of rendering the result of the season's work as full and valuable as possible, the Committee earnestly solicits the co-operation of every ornithologist, field collector, sportsman and observer of nature in North America."

For convenience in collecting and arranging the material which it is expected will be accumulated by the observers, the

United States and British North America have been divided into Thirteen Districts, to each of which a Superintendent has been assigned. These Districts are:

Alaska, Supt., John Murdock, Smithsonian Institute, Washington, D. C.

North-West Territories, Supt., Ernest E. T. Seton, Assinaboia via Carberry, Manitoba.

Newfoundland, Supt., James P. Howley, St. Johns, Newfoundland.

Mississippi Valley and Manitoba, Supt., Prof. W. W. Cooke, Caddo, Indian Territory.

Canada, Supt., Montague Chamberlain, St. John, New Brunswick.

New England, Supt., John H. Sage, Portland, Conn.

Atlantic District, Supt., Dr. A. K. Fisher, Sing Sing, New York.

Middle-Eastern District, Supt., Dr. J. M. Wheaton, Columbus, Ohio.

Rocky Mountain District, Supt., Dr. Edgar A. Mearns.

Pacific District, Supt., L. Belding, Stockton, California. Also British Columbia and Atlantic Seaboard, for which no Superintendents have yet been appointed.

The Committee earnestly request that all who are willing to aid in the work, will immediately communicate with the Superintendents of their respective Districts. Those residing in Districts whose Superintendents have not yet been named, may address the Chairman, Dr. C. Hart Merriam, Locust Grove, Lewis County, New York.

WHAT IS AN ALBINO? I am disposed to ask the above question from certain letters (three or four) which have lately appeared in the newspapers calling White Pheasants Albinos. Some time ago I had an argument with an eminent naturalist, in a sporting paper, who questioned the fact of a White Pheasant being a distinct variety, because we could not point out its *habitat* in foreign parts, Pheasants not being indigenous to this country. My reply was, that though we could not point out the where, the when, or the how it became a distinct variety, we can nevertheless prove conclusively that it is not an Albino, and if not an Albino, what else can you call it but a variety? What, then, are the characteristics of an Albino? It is an animal which drops the invariable or uniform color of its race and becomes colorless, with the peculiarity of pink eyes; and as

such occurrences are very rare, they are called by scientific naturalists "freaks of nature," and that is all the light they can throw on the matter. I have for long had a notion that if we knew more about the cause or origin of Albinos, it would explain much that puzzles us regarding the varieties of color which we find in different species. On the subject of varieties, let me propound a puzzle for scientific naturalists to explain. I believe in this country there is not such a thing as a White Roedeer. At least I only know of one instance, and it was a female, got in our coverts here many years ago, and I have it stuffed. It was, of course, an Albino, with pink eyes. I shall feel much obliged if any of your readers can point out another instance of White Roes having been seen wild in this country. But I am told that there is a variety of White Roedeer common in Germany, so we could easily introduce them here if we pleased. A White Roe is thus an Albino in this country and a distinct variety in Germany.—W. C. (Dunbartonshire) in "Land and Water."

“Brief Notes.”

THE FOX SPARROW. (*Passerella iliaca*) is so early a bird in Spring and so late in its Autumn migration that its occurrence in New England in Winter is nothing very strange, yet in view of the fact that the latest work on New England ornithology, Coues and Stearns, says that we have no information of the bird in Winter within our limits, it may interest the readers of the O. and O. to know that I took a specimen in Bridgeport, Conn., on the 29th of last December. The week preceding had been notable for low temperature and deep snow; but this day was mild and pleasant, and a warm south wind induced me to explore a patch of red cedar trees by the bank of a salt creek. It was here I shot the bird, which on dissection proved

to be a male. The gizzard contained fragments of seeds which were kindly identified by Prof. D. C. Eaton of Yale College, as seeds of the red cedar.—*C. K. Averill, Jr., Bridgeport, Conn.*

THE GREAT NORTHERN DIVER OR LOON, (*Colymbus torquatus.*) One of our well-known writers on ornithology gives this bird "as known to breed occasionally within the limits of New England," "but more conspicuous in Winter than Summer." If this is the case, our section must be one of those favored places; for with us it is a common Summer bird and rarely seen in Winter. It is known to breed regularly at Bow Pond, Strafford, where numbers of birds and nests are annually seen. I myself possess an egg which was obtained from there, measuring $3\frac{1}{2} \times 2\frac{1}{4}$, and of the usual color.—*W. E. Jenkins, Northwood, N. H.*

A SUMMER HOME OF THE BLACK SNOWBIRD.—Here, where the mercury seldom rises above eighty degrees, although on the 35th parallel, the hardy *Juncos hyemalis* finds a congenial, and—I judge by the solicitude manifested, even at this season, if an old nesting place is approached—a permanent residence. Having always resided in Massachusetts up to the Fall of 1882, I never, until the past Summer, heard the song of these birds, which consists principally of a long, loud trill, about a medium between that of the Pine Warbler and the familiar "Chippy." The latter bird, by the way, is rather scarce here. The Snowbird has also a very pretty lisping and disconnected warble of its own, hardly audible at a greater distance than fifteen or twenty feet, and during the performance will cock its head on one side and glance at the listener in a very knowing and pleasing manner. They are very abundant here and exceedingly tame and trustful, coming, sometimes, right in to the doorway and building their nests under piles of old lumber, rails, brush, etc. In the majority of instances, however, they make a rude nest of fine rootlets and sticks placed just under the projecting roof formed by the sides of roads, ditches, and other excavations, where the thin top-soil, matted together with roots, often projects several inches beyond the sub-soil. "My set of three, in size, equal or exceed, being longer, those of the Song Sparrow, but in coloration more resemble the eggs of the lonely Field Sparrow.—*W. Blanchard, Highlands, Macon Co., North Carolina, (4,000 feet above the sea.)*

BIRD CAUGHT BY A SPIDER—ALBINO ENGLISH SPARROW. You encourage correspondence, so I will venture to relate a little incident of last Summer which may not be new to old ornithologists, but was of interest to me. While endeavoring to add a few skins to my collection, I was attracted to the border of an open wood, last June, by a great commotion in a tree-top. Cautionily approaching, I found quite an excited assembly of little birds regarding with great anxiety a little yellow friend, who was fluttering and crying in great distress. He seemed to me to be hanging in mid air, but upon climbing the tree, I found that he was entangled

in a spider's web, from which his most violent struggles as I approached could not extricate him. The spider, one of those large yellow-bellied fellows, was actively engaged in winding him deeper and deeper in the meshes. The bird (a Maryland Yellow-throat) was caught by the legs, head and one wing. I stayed near by until he was nearly done out, then broke him loose with a branch, and had the satisfaction of having him sit quite near to me and relieve himself of the remains of the web, and also observed the discomfiture of the spider. Dec. 12th I saw an Albino English Sparrow. Saw him again several times loafing in front of a feed store with a dozen or so companions. They did not seem to regard him as anything of a curiosity. He was perfectly white, or as nearly so as a bird could be in this city. I left instructions at the feed store for his capture, but he shortly afterward disappeared.—*T. L. Hazzard, M. D., Allegheny, Pa.*

A STRANGE BATTLE. While collecting on the Santa Anna River a few weeks ago, I noticed a flock of Cinnamon Teal, flying in my direction. Thinking they might pass within range, I stepped into a small clump of bushes from which I witnessed a strange battle, which may interest some of the readers of the O. and O. Just before the Ducks had reached my position, I was surprised to see a large Duck Hawk swoop down into the centre of the flock, scattering them in every direction, and seize a large Duck which it carried to the opposite embankment. When it was about to alight, a new actor appeared on the scene in the shape of a Marsh Hawk, which at once commenced swooping down on the Duck Hawk and endeavoring to snatch the Duck from the latter, which at once set up a loud cry and tried to beat off its antagonist with both beak and wings. At length, being hard pressed, it dropped the Duck. Then commenced a fight to see which could snatch the Duck from the ground and get away, each being prevented by the other. How long this would have continued, or which would have been victorious, I do not know, as being anxious to secure the Hawks for my collection, I stepped out and taking advantage of the Hawks being so intent on fighting for the Duck, I advanced to within easy range before they discovered me, when I secured them both. On advancing to the place of combat, I found the Duck's head torn entirely off the body and otherwise mangled by the Hawks in their struggle.—*R. P. Chandler, Tax, Riverside, Cal.*

MAGAZINES RECEIVED.

THE AUK. A quarterly Journal of Ornithology. Vol. I., No. 1., January, 1884. Published by Estes & Lauriat, Boston, Mass.

This is the first number of the New Series of the Quarterly Journal for some years published as the "Bulletin of the Nuttall Ornithological Club." The title, objections to which the Editor is careful to anticipate, reminds one of "The Ibis," the useful organ of the British Ornithologists' Union, as this is stated to be of the American Ornithologists' Union. This first number is an attractive magazine. It abounds in Notes of various kinds, and many references which must be of great assistance to every student of Bird Life. If any fault can be found with the Articles, it will be that they are rather too technical—to understand several of them one needs a knowledge, not merely of Ornithology, but of Latin and Greek. But, as the Editor is good enough to remind us, this is a professional—as opposed to an amateur—publication—whatever these terms may mean in matters ornithological. None the less, however, is it a production from which even amateurs may learn much and which will well repay them for careful study.

THE QUARTERLY JOURNAL OF THE BOSTON ZOOLOGICAL SOCIETY. Vol. III, No. 1, January, 1884. Published for the Society, Boston, Mass.

This is a magazine devoted to the Study of American Zoology, especially the Vertebrates and Insecta. The present number contains a continuation of Ornithological Notes from Minnesota, as well as several General Notes on the occurrence of certain Woodpeckers, rarely found, in Massachusetts. We hope the Society may obtain an adequate support for their Journal.

THE ACADEMIC SCIENTIST. Vol. I., No. 12, December, 1883. Published by A. J. Pineo, Wolfville, N. S.

This publication is devoted to the interests of The Academic Science Club, which aims to awaken and foster a more general interest in Scientific Knowledge.

RANDOM NOTES ON NATURAL HISTORY. Vol. I., No. 1, January, 1884. Published by Southwick & Jencks, Providence, R. I.

This is a pamphlet devoted to the Distribution of Useful Knowledge concerning the various Departments of Zoology, Mineralogy and Botany.

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

We hope for the future to mail our monthly edition on the first of every month. Communications should be sent in as early as possible. Nothing received after the 20th, can be noticed in the number for the following month.

CORRECTION. In the January number in the article on "Mississippi Valley Migration," page 10, the Tree Sparrow was incorrectly reported to Mr. Cooke as nesting at station 21, in 1882. The note in the last sentence refers to the Lark Finch, which frequently nests in trees and has the local name "Tree Sparrow."—D. E. L.

The article referred to by our correspondent appeared only in the specimen number.

W. W. W., (*Shelter Island, N. Y.*) sends a few extracts from his note book of the past season:

Jan. 20. Saw a Belted Kingfisher and a Carolina Dove. Is it not unusual to see the latter here in mid-Winter?

March 1. Saw a Fish Hawk crossing Gardiner's Bay, twenty days ahead of their usual time of arriving.

May 17. Shot a Red-bellied Nuthatch, the first one seen in Spring during six years collecting.

May 23. A nest containing three young Crow Blackbirds, all of which were albinos, was found by a boy, who saw the old bird feeding the young, the old bird being in normal plumage. One of the albinos is mounted in my collection. The color is a very pale drab, or cream-color.

July 29. Saw six Black Terns, off Ram Island Shoals, first ones observed alive by me. Shot two in the same locality a few days later.

Sept. 17. Shot two Forster's Terns at Ram Island Shoals. How far north of this do they stray?

Sept. 18. A Sooty Tern was caught by a fisherman, off Montauk Point. He informed me that it alighted on the deck, near a tub of fish, and was easily captured. I consider it quite a prize.

BIRD NOMENCLATURE. Rev. Gregory Smart, Lytham, England, asks "whether the English names in America signify the English bird of the same name." It is unfortunate that such is very apt not to be the case. Thus the well known name of Robin is given here to a Thrush which is a migrant, and has only a reddish brown breast and semi-social habits to remind one of its English namesake. Whatever points of identity there may be between the Bird Life

of Europe and America, is not proved by their popular names, which are frequently the result of a chance or fancied resemblance.

Mr. Smart asks for the address of any naturalist who publishes a price list (with Latin names) of the Birds' Eggs of America.

THE ENGLISH SKY-LARK. W. J. Sherratt, Philadelphia, writes that these birds were seen last summer in a wood just below Winslow, New Jersey, on the Camden and Atlantic R. R., 22 miles from Camden. "The woods consist mostly of a growth of Scrub Oak, with Lilac and Dogberry bushes, and a variety of wild flowers, etc., that grow in such localities. The ground is flat and somewhat marshy. The birds were seen around there for some time by several persons who reside in the neighborhood."

CARDINAL REDBIRD IN CONFINEMENT. Replying to an inquiry which appeared in May last, (VIII, 88) as to the possibility of keeping certain birds in confinement, Frank Wentworth, Chicago, Ill., writes "I have a Cardinal Redbird which was caught last April in the southern part of Louisiana. He is as healthy and contented as he possibly can be. His principal food consists of bird-seed and rice. He also likes any green food and fruits, especially a California grape. In the summer time, when flies are numerous, he catches them too, and seems to relish them hugely. His song consists of three long drawn whistles followed by three short ones, repeated thrice."

WHOOPING CRANE. C. P. Blackly, Manhattan, Kansas, writes, "About the middle of November, there was captured here, and is now in my possession, a Whooping Crane. Had been wounded in one wing. Is a fine bird and bears the weather well, mercury—23°. Is hearty and quite tame already. Jan. 16, Blue-birds yesterday. Mercury this a.m.—3°."

PEWEE'S EGGS. (Specimen January number p. 12) L. Wheelock, Philadelphia, Pa., suggests that the color of the eggs collected by Mr. Evermann may have been caused by a disease of the bird.

BLUE JAY. (*C. cristata*) J. E. Dickinson, Rockford, Ill., says he has on two occasions listened to the song of this bird, which consisted of four or five syllables repeated for nearly a minute and a half. The bird sat with ruffled feathers and bowed head, its notes appearing to be indicative of sorrow.

C. C. Richards, Norwich, Conn. We hope to receive communications from you again. The one sent scarcely seems sufficiently clear or noteworthy for insertion.

SPARROW BUILDING IN AN ORIOLE'S NEST. E. M. Hasbrouck, Syracuse, N. Y., gives a description of a find he made a few years since and asks if any one else has met with a similar occurrence. He also refers to "A Non-descript," but as he says the nest and eggs "have disappeared from all collections" we fear it is too late to find out whether the bird was "a species hitherto unobserved" or not.

WINTER BIRD NOTES. We have to ask our correspondent, (Aves, Waupaca, Wis.) from whom we have received some Notes, to be good enough to leave his communications in a condition in which we can send them to the printer. To re-write articles written in pencil, and not too legible, is more than we can undertake.

D. E. L. and A. H. Wood. Shall be pleased to insert your communications whenever able to do so.

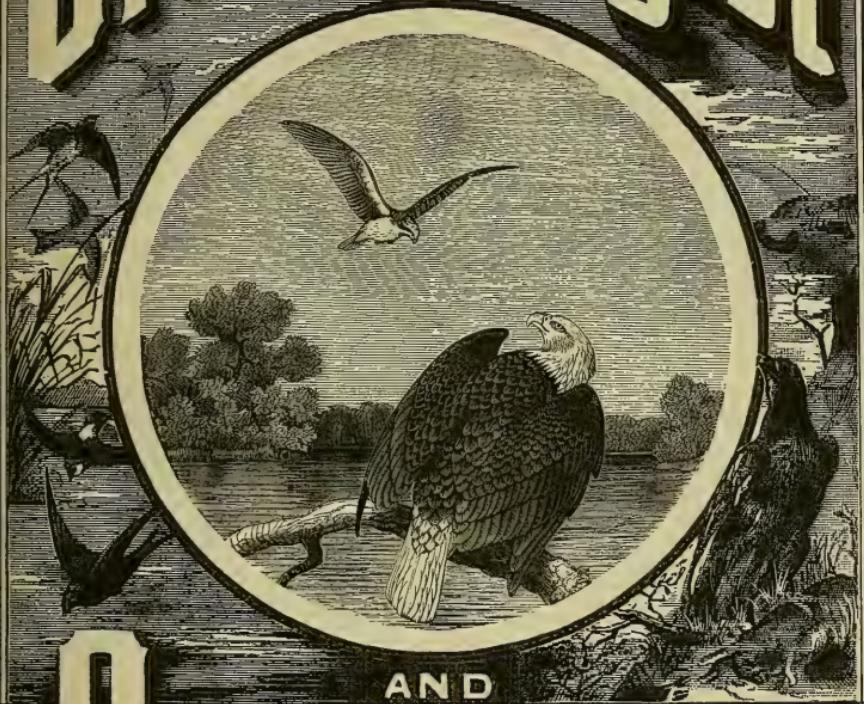
CLEANING WHITE FEATHERS. In one of the early numbers of "Science" appeared the following, which I think would be especially useful in cleaning white feathers: "When obliged to wash birds, collectors will find it an advantage to use salt and water, instead of plain water. The salt prevents the solution of the blood-globules and consequent diffusion of the red haema-globin."—C. W.

MARCH, 1884.

VOL. IX.

No. 3.

Ornithologist



AND

Zoologist

Established 1875.

Published by
FRANK B. WEBSTER,
PAWTUCKET, R. I.

Entered at Pawtucket Post Office as Second-class Matter.

"I consider it a Magazine which *every* true ornithologist, be he "full blooded," or only an amateur, should have at hand, and I will endeavor to extend its circulation among those of my acquaintances interested in the science."

CHAS. B. WILSON, Colby University, Waterville, Maine.

THE ORNITHOLOGIST AND OOLOGIST.

Vol. IX } Commenced a New Series, enlarged to twelve pages of
No. 1, Jan., 1884. } ORIGINAL MATTER.

NOTICES FROM THE PRESS:

The ORNITHOLOGIST AND OOLOGIST is the title of a magazine published by Frank B. Webster, at Pawtucket, R. I., which will be of interest to those interested in ornithology. A feature of the numbers for this year will be an account of the investigations in the Mississippi Valley migration.

—*Brooklyn Eagle.*

The cover is very characteristic as well as artistic, the typographical execution good, and the matter of decided value to all students of natural history, especially bird lovers. This little monthly of twelve pages has improved greatly in appearance since its establishment, in 1875. The pages of the present number exhibit a very fair engraving on wood of our most lovely swimmer, the wood duck, so familiar to Worcester county students as the only duck which perches on trees; and two of the eggs and nest of the Sandhill Crane, known to us only from the further side of the Mississippi river, although its name is frequently misapplied to our large Blue Heron.—*Worcester Daily Spy.*

For eight years this monthly has found

enough to profit and interest without exhausting its subject. The matter is of decided value to all students of natural history.—*Syracuse Daily Journal.*

A very neatly printed, well arranged magazine, containing much of interest to students and lovers of the subjects treated. The publisher is well known as an adept in taxidermy and his collection of specimens is rated very high in such lists.—*Pawtucket Gazette and Chronicle.*

The aim of the magazine is to instruct all those who are interested in bird life. There is quite a field for such a periodical among a certain class.—*Newport Daily News.*

All interested in birds and birds' eggs will enjoy this magazine.—*The Journal, Jacksonville, Ill.*

A specimen number was issued about December 20, 1883, and contains the usual number of good articles and notes. There is doubtless room and need for a distinctively amateur journal like this, and we cordially wish it success.—*The Auk, January, 1884.*

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FRANK B. WEBSTER, Publisher, Pawtucket, R. I.

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ORNITHOLOGIST

— AND —

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VOL. IX.

PAWTUCKET, R. I., MARCH, 1884.

No. 3.

Migration in the Mississippi Valley.

As already announced in the January number of the O. and O., the observations on the migration of birds will be continued for the third year, and there is now every prospect that this spring will see the accumulation of notes more extended and important than ever before. In answer to the request for observers in the January O. and O., many responses have been received, some from those who have had many year's experience in the work of observing. Still there is room for more, especially in the states of Mississippi, Louisiana and Texas; and I would repeat my request that all who are willing to aid in the work should send me their names. Before this number reaches you, spring migration will have already commenced. Indeed, at this place, the birds have already (Feb. 3,) begun their northward journey. In the next number we shall probably be able to give the names and numbers of the stations and observers, and present a map of the district which is to be studied. If possible to collect the notes in time, we will also give a short account of the first movements of the birds from their winter quarters.

To you in the north, whose winters are long and cold, and bird life there very scarce, it may be of interest to know what the birds do in this land where December and January are a mixture of late in the fall and early spring. We have had snow only two days, and Feb. 2 showed the first wild flower in bloom—*Claytonia virginica*.

ca. Bird life has been abundant and varied throughout the winter. Seventy-one species have been identified as actually present during cold weather, while a dozen or fifteen more undoubtedly occur within twenty miles of here.

Indian Territory as a whole is almost an unknown land to ornithologists, and this southeastern part, so far as I can learn, has never before been studied. It has a queer mixture of several avifaunæ. The Harris's Sparrow, (*Z. querula*), Smith's Longspurs, (*C. pictus*), McCown's Buntings, (*R. maccooni*), Oregon Snowbirds, (*J. oregonus*), and Brewer's Blackbirds, (*S. cyanopeplus*), the last present in large flocks all winter, remind one of the plains and mountains of the west and north. The Robin and the Eastern Bluebird are here as representative and familiar birds of the east, but they are a small and very insignificant factor of our bird life. While the Southern Chickadee, (*P. carolinensis*), the great Ivory-billed Woodpecker, (*C. principalis*), the flocks of Turkey Buzzards and Carrion Crows, (*C. aura* and *atrata*), sailing all day overhead, and last fall the large parties of the Texas Bird of Paradise or Scissor-tail, (*M. forficatus*), show that we approach a southern fauna. We also have both kinds of Meadow Lark, (*Sturnella*), and all three varieties of the Yellow Hammer, (*Colaptes*). Altogether it is a very promising field, and it is to be hoped that with the spring tide of migration much valuable material will be collected.—W. W. Cooke, *Caddo, Indian Territory.*

Migration Observations in Austro-Hungary.

By the kind courtesy of Herr V. Ritter von Tschusi zu Schmidhoffen, we have been favored with a copy of the Circular of Instructions issued by the Association having these observations in hand. He also sends us some specimen sheets showing the nature of the individual reports. These observations were commenced in 1882, under the auspices of the Austrian Crown Prince, the Archduke Rudolph, who has taken deep personal interest in the investigations. The first year's Report was contributed to by 46 observers, scattered over the provinces of Austria and Hungary. No fewer than 376 observers are expected to send in their observations for the next Report. The Circular of Instructions contains sets of questions—

1st. In regard to the species of birds noticed at each ornithological station; whether each species increases or diminishes, their general habits, etc.

2d. The migratory habits of the birds are to be noticed.

3d. Their habits during the breeding season; and, finally, biological observations are asked for, such as remarks on the changes in their feathers, etc.

As a preliminary, the observations coming in are put together into an annual Report, while a scientific working up of the whole is to follow in the course of years.

Herr Tschusi also sends us his pamphlet descriptive of the Birds of the Hallein Valley, Salzburg.

Black and White Creepers.

(*Mniotilla varia*.)

This beautiful songster is a common spring and fall visitant, arriving the first week in May. A very few remain through the summer. In the spring they are to be met with among the shade trees about the house, in the hedge by the roadside, and in the depths of the forest, where on the

ground searching among the decaying leaves, running about the trunks and branches or among the foliage of trees, they may be seen—everywhere industrious, ever and anon lisping their happy song. Once only, has it been my good fortune to find its nest and eggs. June 20th, 1883, accompanied by two companions, I had been searching a large forest for the nest of some corn-pulling Crows, but without success. We were passing by an immense prostrate hemlock—my companions on one side, and I the other—when suddenly the foremost crow-hunter stopped and pointing just in front exclaimed "What's that?" It was a Black-and-white-Creeper, fluttering, tumbling and chirping—reminding me of the antics of a Ruffed Grouse (*Bonasa umbellus*), when her young are disturbed. Greatly to my amusement my companions gave chase, the Creeper keeping just out of their reach. I readily found the nest. A flat moss covered stone, seven inches in length by five in breadth, projected horizontally from the steep hillside. Beneath this natural roof—seemingly placed there by the Omnipotent hand expressly for this purpose—was the nest and its complement of five fresh eggs. The nest was placed upon a foundation of rotten fibrous inner bark, bits of rotten wood, leaves, dry hemlock twigs, fine roots, and a few quills of the hedgehog. Considering the coarseness of most of the material used, it was neatly interwoven, and had a lining of hairs, horse-hair and hairlike-roots. The eggs are oval in shape. Their ground color is white with a slight creamy tint. Points, dots and splashes of faint lilac, and different shades of reddish brown, are irregularly scattered over the entire surface, thickest near the larger end where they are confluent, forming a broad ring. On each egg, over the confluent ring are two or three irregular, almost microscopic, points and lines of dark umber. Dimensions of the set are as follows: .71×.55, .70×.45,

.72×.55, .71×.54, .71×.53, respectively.
C. O. Tracy, Taftsville, Vt.

The Cærulean Warbler.

(*Dendræca cœrulea.*)

I.

The Cærulean or Blue Warbler, as it is sometimes called, is perhaps as abundant in the White Water Valley of Southeastern Indiana as anywhere within its range. Its distribution is peculiar, being recorded from the Atlantic coast westward into Eastern Kansas, and from the Gulf of Mexico northward into the Province of Ontario (Hamilton) and Minnesota. It appears in greatest numbers, and its range extends farthest north, in the Mississippi Valley, and its breeding range may, practically, be said to be from the Ohio Valley northward. The Cærulean Warblers reach this latitude about April 20. They are found more frequently along the river valleys and upon the hillsides than upon the upland; they prefer the more open woodland, especially that in which the prevailing timber is sugar-maple, elm and linden. They are not gregarious and where found appear to be evenly distributed. They are seldom found nearer the ground than twenty feet, ranging from this height to the tops of the tallest trees. They are among the most common of our woodland birds, equalling in numbers the Redstart and Golden-crowned Thrush. Their food includes almost all the insects which frequent the trunks, branches and foliage of trees, as well as many species of day flying insects which flit about among the tree-tops. When high in the trees they may be easily mistaken for Flycatchers, and when lower down, among the larger branches, their habits remind one of the Titmouse and Creeper.

Upon the arrival of the Cærulean Warblers they are in full song, the song reminding me somewhat of that of the Golden-winged Warbler, (*Helminthophaga*

chrysoptera.) The melody is interrupted, or broken, and may perhaps best be represented by *zee-zee-zee-zeet*, with a gradual rise in tone from the beginning to the end. While foraging among the smaller branches they may frequently be observed to stop and give utterance to this strange song, which is also nearly always uttered just before flying from one tree to another. I do not remember to have heard this song while the bird was creeping among the larger branches or upon the trunk of a tree; in such instances the note is similar to that of the female and may be expressed by *tchep*: the sound recalls to my mind that made by some persons by a peculiar smacking of the lips. The males arrive two or three days before the females, and for the succeeding two weeks outnumber the latter by about twenty to one. Occasionally birds of the previous year are taken, in which the beautiful blue of the male is subdued or replaced by green, sometimes quite dark, and the white parts are tinged with dirty yellow. In from two to three weeks after their arrival, they begin love making and soon after they commence the construction of their nests. The nest is placed in the fork of a limb at some distance from the body and at from 25 to 50 feet from the ground. I have seen several nests being built, but have never taken one. The female does the greater part, if not all, the work of construction, while her more gifted mate sings his rattling song from some neighboring maple tree. All through the Summer, early in the morning and late in the evening, the song of the "Blue" Warbler is a prominent feature in the sylvan choir.

When the young are able to fly, the whole family forage together and for some time at least maintain the family group unbroken. I am not prepared to say whether more than one brood is reared in a year, but I shall not be surprised to find that to be, at least occasionally, the case. Early in August these pleasant little sojourners

leave us for their Winter home, of which we as yet know very little, as well as of their lines of migration.—*A. W. Butler, Brookville, Ind.*

II.

My first acquaintance with this neat and pretty little Warbler was made one day in August, at the beginning of the Fall migration, a number of years ago. In company with my friend, Mr. F. S. Wright, I was collecting a few birds in a small piece of oak and chestnut woods near Auburn. He, while looking at the tops of some of the larger trees, espied a Warbler, which, on shooting, proved to be a good male of this species. It was the first that either of us had ever seen, but we knew what it was; and very pretty it looked as he held it in his hand. After duly admiring it, the bird was carefully put away in my friend's collecting basket. During the next half hour we shot four more, all of which were of the same sex as the first; and when the time arrived for us to go home, we were more than pleased with our day's success. Since then both of us have very often met with the Blue Warbler; for it has proved to be a regular Summer resident in our locality. Arriving from the South during the second or third week in May, according to the mildness of the season, one is quickly aware of its presence somewhere near by, from hearing its peculiar song. In order to see the bird, you need to look near the tops of the largest trees; for this species is eminently a tree Warbler in every sense of the word. During rainy weather it will be found nearer the ground, following its insect food wherever it goes. But on a bright, pleasant morning high in the treetops will you hear it singing. I have found these birds most abundant in wet woods, where the swamp ash and elms grow to a good height. Although this seems to be its favorite place, it may also be found sparingly in the dry woods with other Warblers. This is more rarely the case however. There is no

doubt that the Blue Warbler breeds with us, but I have never heard of its nest being found near here. This is not surprising, for from what we read of its nesting habits—the nest being built well up in large trees, and generally saddled on a limb—they must be very hard to find.

On Howland's Island, in the Seneca River and about eleven miles distant from Auburn, you can find this species quite abundant throughout the breeding season. Here, as elsewhere, their favorite haunts seem to be in the tall trees in the swampy parts of the island, or in the equally as heavy timber along the river's sides. And in the larger trees do they undoubtedly rear their young. Let one go to this locality on a warm day in May, and almost everywhere can a male bird be heard singing. This song once heard can be easily remembered, for the ending is long drawn out, and of a buzzing sound. The female bird is hard to see, and is seldom shot; at least such seems to be my experience. No doubt, because it lacks the song of the male and utters only the common chip of most of our Warblers. I have met with this bird, wherever I have been in our County, and at any time from the middle of May into the Summer. It seems to be quite evenly distributed in this section, but will be found more common in such places as I have named. It remains with us until about the last of August, and by the 10th of September all the residents and migrants seem to have departed, for I have never seen it after that date. Then must we patiently await the coming of another Spring ere it again puts in an appearance among us.—*S. F. Rathbun, Auburn, N. Y.*

Doubts still existing in some quarters (see New England Bird Life, Part I, pp. 129-130,) as to the Blue Warbler having been taken in New England, I am induced to present my own testimony on the subject. May 22, 1879, was one of those soft, mild mornings which are so favorable for

fresh arrivals. Throwing aside the quill, I made a dash for the nearest woods with those feelings so common to a counting-room naturalist—"anywhere for anything." I soon found myself in what is known as the Albion Grove—on the outskirts of the village of the same name—some five miles from Pawtucket. My attention was soon attracted to the unusual numbers of the Blue Yellow-backs, (*Parula Americana*.) Every tree seemed alive with them. Stepping into an opening, a flock of perhaps twenty came darting past. The temptation was too much. In the mechanical act of firing the peculiar appearance of one was the magnet that attracted its fate. As I picked it up, the first impression was that I had the female of the Black-and-white Warbler, (*Mniotilla varia*.) but close examination convinced me that I had something new. Though badly shattered, I carefully preserved and mounted it. It is now in my collection marked "Cerulean Warbler—male." Comparing it with some fine skins that I have received from Messrs. Rathbun & Wright, I find the markings are exceptionally well defined, but the plumage much darker—rather inclined to slate than blue. Few of our amateur collectors would have saved a bird in the same condition. In this connection, I would suggest to the readers of the O. and O.—save any specimen that attracts attention as unusual, no matter in what condition. If only the head, wings and feet are preserved—they may lead to an identification that will be of value to all.—*F. B. W.*

How to Use Arsenic.

I am frequently asked if I am ever troubled with insects in my Natural History specimens and I only have one answer—Never—and if my directions are followed no one ever need be. After skinning, immediately cover the moist skin with pure arsenic—be particular to cover every part. I keep my arsenic in a large box and put

my skins right into the arsenic; pull out the leg and wing bones as far as possible so as to introduce the arsenic to the extreme parts; the eye sockets, skull and mouth should be well covered with the preservative. I usually, before mounting, place the specimen in my office cellar, and let it remain twenty-four or more hours, so as to get well impregnated with arsenic. After mounting, brush the bill, legs below the feathers, feet, and ends of the wings that cannot be skinned, with a solution of corrosive sublimate, in alcohol—about a teaspoonful of the former to one-half pint of the latter. I have bird skins that I have designedly left exposed to insects for thirty-five years which to-day are uninjured and will remain so forever—that is a good long time, I know, but they are good for it. I know of several collectors who have laughed at my "useless waste of arsenic," thinking a little just as good, or who prefer arsenical soap, or some other preservatives, whose collections are entirely ruined. I have been in the habit of using from fifteen to thirty-five pounds a year for thirty-seven years in my private collection. It created some merriment in court where I was summoned as a witness in a case of arsenical poisoning, when asked if I was familiar with arsenic, and I replied that I had probably used one-half ton of it. "What!" said the counsel, "given one-half ton to your patients!" When I receive dry skins, I pack them very loosely in a tight large box, leaving space for an iron kettle, in which is placed live coals. On these pour sulphur and close the box tight, leaving it for twenty-four hours or so; and if there are insects in the skins you will find them dead. Then subject the skin to the same arsenical treatment as a fresh skin.—*Wm. Wood, East Windsor Hill, Feb. 12, 1884.*

A King Eider, (*Somateria spectabilis*.) was shot at Nayatt Point, Bristol Co., about Jan. 1, 1884, by Mr. Frank Tobey. It was an adult male. This is not the first record for Rhode Island, Mr. F. B. Webster having a female, which was taken at same place Nov. 27, 1879.—*Random Notes.*

THE
ORNITHOLOGIST

—AND—

OÖLOGIST.

A MONTHLY MAGAZINE OF

NATURAL HISTORY,

ESPECIALLY DEVOTED TO THE STUDY OF

BIRDS,

THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,

PAWTUCKET, R. I.

The Black-throated Blue Warbler
in Connecticut.

On the 6th of June, 1883, I had the good fortune to find a nest of *Dendroeca caeruleascens*, being the fourth which I have taken in this town (see Nutt. Bull. Vol. 1, p. 11, and O. and O. Vol. 6, p. 49). It was by a mere accident that I found it. At the time I was giving my attention wholly to a Canada Flycatcher (*Myiobius canadensis*) singing just in the edge of a thickly wooded swamp, whose mate I felt sure was brooding near by. I was slowly making my way toward him through the thick growth of Laurels, and as I pushed aside the bushes to open a path, I caught a glimpse of an object just beneath my hand which arrested my attention. I carefully parted the leaves and there lay a nest with whose appearance I had become somewhat familiar. It contained four eggs, but the bird had slipped away. So I sat down on a stone not more than four or five yards away and waited to see what I could see. Presently I heard a low chirp, then another and soon a bush moved: a few moments more and there was a slight quiver of the leaves in another part of the thicket, and then I discovered the bird cautiously passing through the leaves. Gradually she approached nearer, till I could see her dis-

tinctly enough to distinguish the faint white wing-spot. Her complaints were uttered in a low tone, but her mate evidently heard them for he very soon made his appearance and seemed more disturbed than the female. He kept very close to her, within a foot or two, changing his position whenever she moved, and his showy plumage formed a marked contrast with the modest garb of the female. Their protestations grew louder as I continued to watch them, and the female Canada Flycatcher, whose nest must have been near by, came to offer her sympathy. But this was not very graciously received, for the female *caeruleascens* hustled her off the premises without ceremony. I then took a position so as to bring some tall bushes between me and the nest, when she began gradually to approach it and soon disappeared behind them. The male also disappeared at the same time. I then cautiously approached and found her settled in her nest with only her head and tail appearing above the rim.

This nest was not so near the ground as were the other three which I have found, the top being seventeen and one-half inches high. In general appearance it resembles them. On the outside is a quantity of some white, woolly substance, not spread evenly over the nest, but stuck on in bunches as if the bird had deposited what she brought each time, whenever it was most convenient, and without any particular object in view, unless it was for the looks of the thing.

This bird seems to have a partiality for wet ground. The nest was not more than thirty yards from the edge of a wet swamp. It was in large woods, having a thick undergrowth composed principally of Kalmias, in one of which it was built. And a reference to my accounts of the other nests will show that they were similarly situated, i. e., in Kalmias. At neither of the other nests did I see anything of the

male bird. I was therefore particularly pleased to see him make his appearance on this occasion, as it removed some unfavorable opinions about them which I had begun to entertain.

As I took my first nests of this species in 1874, their breeding here embraces a period of nine years at least. And as I was obliged to capture the first two females for identification, neither they nor their offspring could have been the parents of these last two nests. This would seem to indicate that it was not entirely accidental that one or even two pairs had dropped out of the migration and remained so far south of their usual breeding grounds, but rather that at least a colony had been established here for many years. It would be interesting to know just how this was first brought about. But it would be reasonable to suppose that it began with a single nest. A bird may have been in some way partially disabled so that she could not continue her flight, or the necessities of maternity may have checked it, and making a home where she could, that would be the home of her offspring as truly as though it were farther north, and the place which they would naturally seek on their return the next season. There is no reason why the same thing might not happen to any of the species of small birds which habitually proceed to the far north to spend the summer. A more thorough observation of their migratory and breeding habits will doubtless result in modifying many current opinions respecting them.

It is an interesting question, and deserving of careful investigation, whether there is in any of the more northern summer residents and particularly the *sylvicolidae*, a tendency to shift or extend their breeding range further south? The constant destruction of the northern forests must produce climatic changes to some extent, and probably will affect the food supply. But is this change of such character and extent as to produce any perceptible

change, as yet, in the summer residence of these birds? And on the other hand is there a tendency in any species to push farther north as the country becomes more open?—C. M. Jones, Eastford, Conn.

Winter Birds of Locke, Mich.

A list of the Winter birds of Locke, Michigan, seen in December, 1882, and January and February, 1883, with dates of their occurrence or capture.

DECEMBER, 1882.

1. Chickadee, (*Parus atricapillus*), 22.
2. White-bellied Nuthatch, (*Sitta carolinensis*), 5, 21, 22, 24, 25, 29.
3. Butcher Bird, (*Lanius borealis*), 8, 16.
4. Lesser Red-poll, (*Ægithus linaria*), 6, 10, 16, 17, 18, 22, 23, 25, 26, 27, 28, 29, 30, 31.
5. Yellow Bird, (*Chrysomitristristis*), 5.
6. Snow Bunting, (*Plectrophanes nivalis*), 20.
7. Tree Sparrow, (*Spizella monticola*), 13, 16, 17, 18.
8. English Sparrow, (*Passer domesticus*), 1, 9, 12, 26, 27.
9. Blue Jay, (*Cyanurus cristatus*), 5, 22, 24, 25, 27.
10. Pileated Woodpecker, (*Hylotomus pileatus*), 24, two seen.
11. Hairy Woodpecker, (*Picus villosus*), 5, 21, 24, 25, 29.
12. Downy Woodpecker, (*Picus pubescens*), 25, 29.
13. Carolina Woodpecker, (*Centurus carolinus*), 22, 24, 25.
14. Highholder, (*Colaptes auratus*), 16.
15. Barred Owl, (*Syrnium nebulosum*), 20.
16. Acadian Owl, (*Nyctale acadica*), 13.
17. Mourning Dove, (*Zenædura carolinensis*), 9, 10, 18.
18. Wild Turkey, (*Meleagris gallopavo*), 20.
19. Ruffed Grouse, (*Bonasa umbellus*), 22, 24.

20. Quail, (*Ortyx virginiana*), 5, 10,
21, 24.

JANUARY, 1883.

1. White-bellied Nuthatch, (*Sitta carolinensis*), 2.

2. Horned Lark, (*Eremophila alpestris*), 17, one seen; 18, one.

3. Cedar Bird, (*Ampelis cedrorum*), 12, one seen.

4. Purple Finch, (*Carpodacus purpureus*), 17, 18.

5. White-winged Crossbill, (*Curvirostra leucoptera*), 12, one.

6. Lesser Red-poll, (*Ægiothos linaria*), 7, 17, 21, 23, 26, 27.

7. Yellow Bird, (*Chrysomitris tristis*), 28, one.

8. Snow Bunting, (*Plectrophanes nivalis*), 11, 22, 24, 25, 27, 28.

9. Snow Bird, (*Junco hyemalis*), 28, one.

10. Tree Sparrow, (*Spizella monticola*), 18, 20, 25, 26, 27, 28.

11. Meadow Lark, (*Sturnella magna*), 16, one.

12. Blue Jay, (*Cyanurus cristatus*), 4.

13. Pileated Woodpecker, (*Hylotomus pileatus*), 10.

14. Barred Owl, (*Syrnium nebulosum*), 25, one.

15. Mourning Dove, (*Zenædura carolinensis*), 12, 13, 20, 24.

16. Ruffed Grouse, (*Bonasa umbellus*), 8, 9.

17. Quail, (*Ortyx virginiana*), 8, 9.

FEBRUARY, 1883.

1. Robin, (*Turdus migratorius*), 7, three seen; 19, one; 26, one.

2. Chickadee, (*Parus atricapillus*), 28.

3. White bellied Nuthatch, (*Sitta carolinensis*), 12, 18, 19, 20, 21.

4. Horned Lark, (*Eremophila alpestris*), 18, one; 28, one.

5. Purple Finch, (*Carpodacus purpureus*), 1.

6. Lesser Red-poll, (*Ægiothos linaria*), 2, 4, 9, 11.

7. Song Sparrow, (*Melospiza meloda*), 10, one; 13, one.

8. Snow Bunting, (*Plectrophanes nivalis*), 7.

9. Tree Sparrow, (*Spizella monticola*), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17.

10. Crow, (*Corvus frigivorus*), 17, 19, 20, 21, 22, 23, 24, 28.

11. Blue Jay, (*Cyanurus cristatus*), 20.

12. Hairy Woodpecker, (*Picus villosus*), 19.

13. Downy Woodpecker, (*Picus pubescens*), 18, 19.

14. Carolina Woodpecker, (*Centurus carolinus*), 19.

15. Marsh Hawk, (*Circus cyaneus*), 17, one; 24, one.

16. Mourning Dove, (*Zenædura carolinensis*), 1, 4, 25, 28.

17. Quail, (*Ortyx virginianus*), 12.

Number of species, 31.

—Dr. H. A. Atkins, Locke, Mich.

The Pine Grosbeak.

(*Pinicola Canadensis*.)

On Jan. 13th, I first saw a large flock of these northern birds, and for the following week they were quite common. They were very tame, and I obtained as many good specimens as I wanted. I saw several adult males in full red plumage. Is this common in winter? I observed that they were always engaged in picking the seeds from the cones of the Larch-trees, and a few were generally hopping about on the ground.

Although always quite tame, these birds appear to be especially so in a snow storm. They seem totally unacquainted with the effect of any missile; as, if a stone is thrown they never fly until it strikes something near them. Towards the latter part of the month, if disturbed while feeding, they would leave the immediate vicinity, but when they first arrived they were not easily driven away from their feeding grounds. Whenever they fly, they make a whistling sound like a Wild Dove. Do

they make this with their wings? They were very fat and most of the specimens shot were in various stages of moulting.

I saw these birds last winter also, but in comparatively small numbers, nor were there any red males among them. Have you heard of them in any other part of the country as far south?

I send you these few facts as I find very little in ornithological works in reference to these birds—*P. S. W., Southboro', Worcester Co., Mass.*

The Pine Grosbeak appears to have been uncommonly plentiful throughout New England this season, probably owing to the severe winter which has been experienced in the northern sections. Our correspondent (*Chas. C. Richards, Norwich, Conn.*) reports seeing them in large flocks, and we have received numerous letters to the same effect from other quarters. In severe winters they are occasionally found even as far south as Pennsylvania, but we have no report of their having been seen there so far this season.

We have been a little surprised to notice that many of our Collectors seem to have failed to identify these birds. For the information of any who may yet have to make their acquaintance, we subjoin brief descriptions of specimens taken this month (February) within a hundred yards of our office.

Male. Length about $8\frac{1}{2}$ inches, rather thickset. Upper mandible extending over the lower one and slightly hooked. General color carmine-red, brightest on head and base of tail. Wings a brownish-drab with two white bands. Lower edges of quills white. Iris hazel. Very similar in appearance to the Purple Finch (*Carpodacus purpureus.*) In its summer plumage the bird is probably far brighter. Female. Same size as the male. Color Ashy-brown, or Drab. Back of head and base of tail tinted with a yellowish-brown.—*F. B. W.*

A Winter Tramp.

A pleasant morning was February 2. Having had no chance previously to find what this winter was giving us in bird life, I determined to improve the day. Making an early start, the first that greeted me was a group of Chickadees clustered on a bunch of bayberry bushes, and above them a Downy Woodpecker thumping away on an old birch stub. A little farther on, in crossing a piece of stubble, I came on to a flock of Goldfinches, and with them I noticed some Golden-crowned Kinglets. A few Crows flew over, and up from the swamp came the noisy chatter of Blue Jays. Passing by a small grove of pines, several Golden-winged Woodpeckers flit away from their warm retreat. Just beyond, a flock of Pine Grosbeaks spring up from the ground and alight in a large tree—just what I have been looking for. A handsome male is conspicuous among his more modestly dressed companions, and I cover him with the sight of my little cane gun. He tumbles at the report and I consign him to the basket.

This is the first male I have seen this season in the red plumage, the grey and green female and young being much more common. Half an hour's walk more and I arrive at the salt water cove known as "hundred acres." Nothing is seen at first, but during lunch three Gulls come sailing over the cove, and my field-glass tells me one is a Black backed gull, a rather uncommon winter visitor. About as I turn to leave, a flock of Long-tail Duck sail over the top of a projecting bluff and alight close to the opposite shore. On my return walk I flush a Ruffed Grouse. He swiftly whirrs away to the friendly cover of a cedar thicket—poor fellow, he has escaped the onslaught of the open season, let him enjoy his well earned rest.

As I near home I make a detour to go through an old orchard. In a large hollow tree I find the wings and tail feathers of a

Flicker. Ah! this is the work of an Owl. Guess I will look close. After examining a few well known holes, I climb to the decayed top of the "summer sweeting" in which I found a *Scops* not a week ago. Sitting in the same place, I find the object of this search, a Mottled Owl, in the red plumage. It is now nearly dark and soon I reach home, unsling my fish basket, consign the owl to my owlery, and in a few moments have the Grosbeak, with the exception of drying, ready for the cabinet of skins.—F. H. C.

Notes from Central Iowa.

ROSE-BREASTED GROSBEAK, (*Zamelodia ludoviciana*.) One of the most common of our Summer residents. Out of over seventy-five nests taken near here during the last three seasons, none were below eight feet above the ground; the highest about thirty feet; average between ten and fifteen feet. The largest number in set, five; sets of three and four being generally met with.

GREEN HERON, (*Butorides virescens*.) Most common of our Herons here. Breeds abundantly along the rivers and about small swamps. Of four sets taken June 3, 1883, in a small willow swamp, three contained four eggs each; the fourth, five.

KINGFISHER, (*Ceryle alcyon*.) Generally appears about the third week in April, and remains sometimes as late as the second week in November. Eggs laid about the first of June.

BLUE-GRAY GNATCATCHER, (*Polioptila caerulea*.) Last week in June ('81) found a nest with two young, nearly fledged. May 19' (1883) found a nest ready for the reception of the eggs, but on visiting it a few days later, for the purpose of securing the eggs, found nest gone.

WHITE RUMPED SHRIKE, (*Lanius ludovicianus excubitorides*.) Several nests. One taken May 2 ('81) contained three fresh eggs. June 14, noticed three young, only a few days out of the nest.

QUAIL, (*Ortyx virginiana*.) Common. Took one nest with eighteen eggs.

RED-HEADED WOODPECKER, (*Malanerpes erythrocephalus*.) Common Summer resident. A few, perhaps, spend the Winter with us. Saw one the second week in January. Have secured two eggs only about one-fourth the usual size. One was taken from a nest from which nine eggs were secured. The second in a nest with four others of the usual size.

BROWN THRUSH, (*Harpornynchus rufus*.) Found nest with three eggs, one of which was less than one-third the usual size.

SCARLET TANAGER, (*Pyranga rubra*.) Rather common summer residents. Sets generally contain four eggs. Found one nest with a Cowbird's egg embedded in the bottom. The Cowbird had evidently laid its egg in the nest, and the Tanager, not having completed its nest, built over it. Did not notice the egg until I had taken the nest down and chanced to turn it over and discovered the egg in the bottom. The nest contained three Tanager's eggs.

SUMMER REDBIRD, (*Pyrrhula aestiva*.) Sets taken by me in this vicinity all contained four eggs, without exception.

PILEATED WOODPECKER, (*Hylotomus pileatus*.) Is occasionally seen during the winter, in the heavy timber.—C. R. Keyes, Des Moines, Iowa.

Birds of the "Panhandle" W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE,

(INCLUSIVE) 1883.

PART I.

PREFATORY NOTE. This journal was not only written as a personal diversion, and in the prosecution of the author's own ornithological studies, but with a special reference to its availability as a private and supplemental means of instruction and encouragement to his children in the study of Bird-life. An afterthought suggested that, aside from its possible interest to ornithologists as a list of birds of this vicinity, and as a record of the experiences of an amateur, with the original descriptions in simple, unscientific terms, its publication might prove helpful and encouraging to other children than his own. The proverbial interest that attaches to a published diary—by reason of its characteristic variety and freshness—commends it as an available medium for the communication of knowledge. There are

peculiar advantages in communicating bird knowledge by such means. In the mind of the reader the birds are constantly associated with their respective and proper times and seasons; the winter records will discover the winter residents, the summer records the summer residents, the winter and summer records the permanent residents. The transient visitors, or migrants will also be sufficiently indicated, the periods of migration and nidification will be disclosed by the various dates of entry. Thus the whole are most apt to be faithfully and permanently fixed in the mind of the young student. The central point of the author's observation was the village of Fairview, county-seat of the (West) Virginia Panhandle, about four miles inland from the Ohio river.

JAN. 1st. But one bird met my eye, but enough perhaps for a New Year's day entry; this was a Tufted Titmouse, (*Lophophanes bicolor*), which, as I drove along an unsheltered road, for some distance kept a little in advance of me by short flights from one fence stake to another. This species, in this locality, is much more numerous than the Black-capped Titmouse, both of which are commonly called Chickadees. It is a permanent resident with us, and its loud, whistling notes—*fair-lee, fair-lee*, deliberately uttered, or *purl, purl, purl*, rapidly repeated, may be heard issuing from our woods almost every month of the year. Its crest and lead-colored coat will sufficiently distinguish it to the observer.

JAN. 2. Saw a pair of Cardinal Grosbeaks, or Crested Red-birds (*Cardinalis virginianus*) in the midst of a small thicket against a high bank at the roadside—a favorite haunt at this season of the year.

Saw several flocks of Snow-birds (*Junco hyemalis*), also Tree Sparrows, (*Spizella monticola*), in some instances associating together. By reason of this habit of joining company, perhaps it is, the two species are not infrequently confounded by inexperienced observers, but the Snow-bird may readily be distinguished from the Sparrow kind by its uniformly darker coat (slate color,) and, in its flight, exposing two white feathers in its tail, which are then very conspicuous. The unmarked breast (save an obscure dusky spot in the centre) and white wing bars, of the Tree Sparrow will distinguish it from the Song Sparrow, which remains with us throughout the year.

JAN. 4th. Observed a flock of about a dozen Turtle Doves (*Zenaidura carolinensis*), feeding in a corn field on the bare spots caused by the removal of several shocks of unhusked corn, the ground being covered with several inches of snow. This bird is only partially migratory with us, and may be seen singly or in small companies throughout our coldest winters.

Saw some half dozen Cardinal Grosbeaks amid the thick undergrowth on the banks of a small stream. With this "Virginia Nightingale," I cannot but regard in an ornithological point of view, this district of country as specially favored, in this, while it is one of the most beautiful of our native American birds, and withal a charming and lasting songster, it is here an abundant species, and remains with us all the year round.

JAN. 9. There have been but few days this winter I have not seen one or two White-breasted Black-capped Nuthatches, (*Sitta carolinensis*), moving up or down and around the larger branches of a row of locust trees in front of the parsonage on the village street. To-day, from my study window, I witnessed an interesting performance of one of these birds—not three yards from me, it is effort to break a small particle of matter, of the size and shape of a butter-bean, it had picked up from the ground. Its position was on an oblique limb; holding the substance in its bill it would strike it two or three times against the limb

and then momentarily *lodge* it, repeating the performance perhaps a dozen times. The curious thing about it was its ability to lodge at will, and with such rapidity, that bit of matter on a limb sloping, perhaps, at an angle of forty-five degrees, without the aid of its feet and with nothing but a slight unevenness of bark to hold it. This would require the steadiest nerve of a man to do, if he could do it at all.

JAN. 25. In the dusk of the evening, while in my saddle, started up a small flock of Turtle-Doves that were roosting among the dry grass just inside the fence at the roadside and near to the edge of a wood. As between my horse and his rider and those noisy winged birds, the advantage of the mutual alarm was undoubtedly with the birds.

JAN. 26. This morning found the ground covered with three or four inches of snow. Three Wh-te-bellied Nuthatches, a Crested Tit and a Downy Woodpecker, *alias* the little "Sapsucker," or small spotted Woodpecker, (*Picus pubescens*) all in one company, in a small strip of woods, met my eye.

Have rarely failed in my drives to see the ubiquitous Black Snow-bird, which seems about as numerous proportionately in this day as in the days of Alexander Wilson, who pronounced it to be the most numerous of its tribe.

JAN. 30. This morning is mild and springlike, and while I write a great Carolina Wren (*Thryothorus ludovicianus*) perched on the top-most branch of an apple tree in full view of my window, is singing with great animation. This is the only native song bird with which I am acquainted that remains in full song throughout the year. In every month of winter, during the milder and more open weather, its sprightly notes may be heard. A common local name I have often heard given to this bird, and also to the Crested Tit, certain of whose notes are somewhat similar, is that of Sugar-bird from their habit of singing throughout the bright days of Maple-sugar making, or when the sap of the sugar-tree is supposed to be running. During the early part of this winter, a pair of these birds found lodgings in my stable, on a bracket-shelf a few inches below the floor of the mow, in a cosy little retreat among the hayseeds, spider-webs and projecting straws, where they were entirely concealed from view. In very cold or blustering weather, observed they were wont to seek the same shelter, where they would remain a large portion of the day. This bird may be distinguished from the familiar House Wren by its larger size, and by a rather conspicuous whitish line over the eye more than inch long. The back, also, is without the dusky wave lines of the latter, (being of a uniform reddish-brown) which are common to both on wings and tail.

Brief Notes.

NOTES FROM HARTLAND, CONN. One afternoon in early May, (1881,) while going up a steep bank from the river, (Conn.,) I observed a pair of Great Northern Shrike, (*Lanius borealis*), flying about as if they were greatly disturbed by my presence. Upon looking around, I found their nest in an old apple tree. It contained four young birds, of about one week's growth. This is the only nest to my knowledge ever found in this locality. It was composed of twigs and dark colored roots similar to those used by the King Bird, (*Tyrannus carolinensis*), in the construction of its nest. It was lined with hen's feathers and woodchuck's hair.

On the first of June, 1882, while passing an old orchard, I saw a hole in an apple tree. As I drew near it, a bill stuck out, then out went an old Yellow-shafted Flicker, (*Colaptes auratus*), into a neighboring tree. I was not long getting up to the hole, but when I got there I had to whittle away with my jackknife until I could reach the bottom, where I

found six eggs. I took them; in about a week I passed the orchard again, and seeing the bird fly out of the hole, I got up to it, and found six more. Then, just for the curiosity of knowing how many eggs she would lay, I continued to visit the nest. At last, I suppose she thought I was a little selfish, and so gave up the nest, leaving me with twenty-seven eggs.

While driving sheep to pasture on the 12th of June, 1883, I observed a nest on the side of the road. Upon going to it, I found it was a Catbird's, (*Galeoscoptes carolinensis*), containing five eggs. I think this is the only one ever found containing so many in this locality.

On the 15th of June, I found a nest of Robins, (*Turdus migratorius*), containing five eggs, the only one I ever saw except the one found by Mr. C. O. Tracy of Taftsville, Vt.—*P. M. Goodevin.*

WILDCAT CAPTURED AT BROOKFIELD CENTRE, CONN. It gives me pleasure to send you information respecting the Wildcat. I do not suppose he is in any wise remarkable, but he is a very fine specimen, and his value to me is increased by the fact that he is local. He was captured by a farmer about two miles above this village. Having missed his poultry for some time, he impregnated a dead turkey with strichnine, which the animal devoured. He was evidently very old, as his teeth were very poor, the long canine teeth being worn down to mere stubs. Had he been better off in this respect, I think he would have been much heavier. In color he is a light gray with no stripes or bars except a brown line down the middle of his back and two rings round his tail. His fore legs, flanks, and under parts are, however, thickly mottled with circular brown spots, which are more faintly evidenced on his sides, resembling somewhat the Southern form, viz., (*Lynx rufus, var. maculatus*.—*Baird*) I have been told of one shot five or six miles north from here that weighed 35 pounds; also of one shot in Roxbury, Conn., that weighed 40 pounds, but I cannot vouch for the truth of it. Date of capture, Feb. 1, 1884; sex, male; length from tip of nose to root of tail, 33½ inches; length tail to end of vertebrae, 6 inches; elbow to end of fore claws, 12 inches; girth of muzzle at middle, 8 inches; girth back of shoulders, 22 inches; width between outer corners of eyes, 3½ inches; width between inner corners of eyes, 1½ inches; weight, 27½ pounds. As he stands now in a crouching position his height at the shoulders is 13½ inches. Standing erect, it would be, I should think, 16 inches.—*George C. Jones, Brookfield Centre, Conn.*

BLUE JAYS have appeared in great numbers around farm houses in this vicinity, probably because of a scarcity of food in the woods. I succeeded in catching one, Jan. 29th, weakened by long fasting, and have him in captivity now. His principal food is meat, beechnuts and corn while confined, and he is lively and apparently contented, sometimes giving vent to one of his shrill screams, or exercising his powers of imitation, which are admirably developed.—*W. E. Jenkins, Northwood, N. H.*

ELEMENTARY STUDY OF ORNITHOLOGY IN FRANCE. We have received a copy of an elementary work on the "Utility of Birds," by M. F. Lescuyer of St. Dizier, Haute Marne. It is published by the Society of Literature, Science, etc., of that place, and is intended as a School Text-book of Ornithology. The plan is by question and answer, and the author has brought out within his limited space many facts regarding Birds, a universal knowledge of which would lay the foundation for future study in those whose interest was awakened. Its use in public schools must have an excellent effect in fostering a knowledge and love of one of the most attractive branches of Natural History.

THE TAILOR BIRD. We have been shown a very curious nest of this bird, which was brought from Canton River,

China. It is composed of a large leaf of the plaintain formed into a cup and held in that position by a number of stiches—some cotton like fibre being used as thread. The outside of the nest thus formed, the inside is made up of fine grass and roots.

NOTE FROM CANANDAIGUA, N. Y. We had very deep snow and intense cold weather throughout the month of January, still the Common Crows were more abundant than I have ever known them to be in previous Winters. Snow Buntings very rare.—*John M. Howey.*

NOTE FROM GRAVENHURST, ONT. I have lived here seven years but have not been able to obtain a Bittern until last season, when they were plentiful. I have not until this Winter obtained a specimen of the Pigmy Owl, but this Winter have received three. What causes these to be plenty some seasons, and none others?—*R. B. S.*

A Purple Finch was taken at Falmouth, Mass., Feb. 8th, by F. J. C. Swift.

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

We hope for the future to mail our monthly edition on the first of every month. Communications should be sent in as early as possible. Nothing received after the 20th, can be noticed in the number for the following month.

OUR NORTHERN RAPTORES. (O. and O., Jan., page 8.) Our correspondent, F. H. C., desires us to state that three years were spent in collecting the facts he stated there. To economize space he arranged the dates to appear as one year—the scientific facts remaining the same.

MIGRATION NOTES. (W. W. Gilman, Stoughton, Wis.) The abbreviations used are as follows: (21) 3.2 F, 4.7, 5.14 L, should be read—Observer No. 21 (whose name and locality are given) saw a certain bird for the first time that season on the 2d of March, saw others on 7th of April, and saw the last of the season on 14th of May. A little care in reading them will make the Notes just as intelligible as if four times as many words were used.

GOLDEN-WINGED WOODPECKER, (High-hole.) *J. Anthony, Jr.* Our correspondent's item is so contrary to the well-known habits of this bird, that we are inclined to think he must have mistaken some other bird for it.

HERRING GULL IN ILLINOIS. *A. H. Mundt, Fairbury, Ill.*, sends drawing of head of a bird which he describes as follows: "The bird was shot flying over a corn field Jan. 21, 1884. Length of head from tip of beak to back of skull just five inches; from tip to tip of outspread wings, lying on its back upon the floor, four feet; and from tip of beak to end of tail, two feet. Plumage, grey and white, spotted; legs and feet very small; legs as thin as pipe stems, all uniform flesh color; feet webbed like a duck, head very eagle like, eyes dark, lower beak flattened." The bird described seems to be a young Herring, or Silvery Gull, (*Larus argentatus*). They are very common on the east coasts.

BOAT-TAILED GRACKLE. (O. and O., Vol. VIII, page 76.) *Edgar A. Small, Hagerstown, Md.*, asks us to correct his note as to the breeding of this bird in Kent County, Md. His informant only saw the birds, and does not appear to have satisfactorily identified their nests.

NOTES FROM PELHAM, N. H. We thank Dr. Batchelder for the notes of arrivals, which we put aside for comparison some time when we can make them useful.

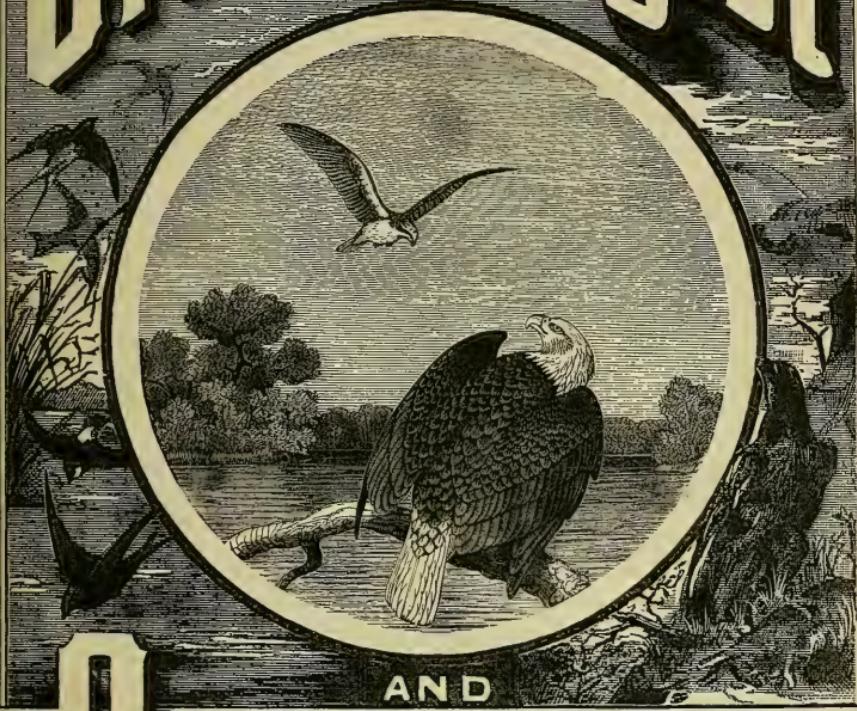
A CURIOUS MEAL. *E. G. Nicewander, Baltimore, Md.* Amongst the uses of such birds as the Turkey Buzzard is that of keeping down snakes, which form a very common article of their diet.

APRIL, 1884.

VOL. IX.

No. 4.

Ornithologist



AND

Zoologist

Established 1875.

Published by
FRANK B. WEBSTER,
PAWTUCKET, R. I.

Entered at Pawtucket Post Office as Second-class Matter.

"I consider it a Magazine which *every* true ornithologist, be he "full blooded," or only an amateur, should have at hand, and I will endeavor to extend its circulation among those of my acquaintances interested in the science."

CHAS. B. WILSON, Colby University, Waterville, Maine.

THE ORNITHOLOGIST AND OOLOGIST.

Vol. IX } Commenced a New Series, enlarged to twelve pages of
No. 1, Jan., 1884. } ORIGINAL MATTER.

NOTICES FROM THE PRESS:

The ORNITHOLOGIST AND OOLOGIST is the title of a magazine published by Frank B. Webster, at Pawtucket, R. I., which will be of interest to those interested in ornithology. A feature of the numbers for this year will be an account of the investigations in the Mississippi Valley migration.
—*Brooklyn Eagle*.

The cover is very characteristic as well as artistic, the typographical execution good, and the matter of decided value to all students of natural history, especially bird lovers. This little monthly of twelve pages has improved greatly in appearance since its establishment, in 1875. The pages of the present number exhibit a very fair engraving on wood of our most lovely swimmer, the wood duck, so familiar to Worcester county students as the only duck which perches on trees; and two of the eggs and nest of the Sandhill Crane, known to us only from the further side of the Mississippi river, although its name is frequently misapplied to our large Blue Heron.—*Worcester Daily Spy*.

For eight years this monthly has found

enough to profit and interest without exhausting its subject. The matter is of decided value to all students of natural history.—*Syracuse Daily Journal*.

A very neatly printed, well arranged magazine, containing much of interest to students and lovers of the subjects treated. The publisher is well known as an adept in taxidermy and his collection of specimens is rated very high in such lists.—*Pawtucket Gazette and Chronicle*.

The aim of the magazine is to instruct all those who are interested in bird life. There is quite a field for such a periodical among a certain class.—*Newport Daily News*.

All interested in birds and birds' eggs will enjoy this magazine.—*The Journal, Jacksonville, Ill.*

A specimen number was issued about December 20, 1883, and contains the usual number of good articles and notes. There is doubtless room and need for a distinctively amateur journal like this, and we cordially wish it success.—*The Auk, January, 1884*.

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FRANK B. WEBSTER, Publisher, Pawtucket, R. I.

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— A N D —

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PAWTUCKET, R. I., APRIL, 1884.

No. 4.

Migration in the Mississippi Valley.

When last month it was announced that the names of observers would be published this month, with a map showing the stations, it was expected that the names of all desiring to aid in the work would, ere this, have been received. Somewhat to our surprise, and greatly to our satisfaction, the names continue to pour in. In order, therefore, that as few names as possible be omitted, it is thought best to defer the list and map until next month; but we will give some of the notes that have been contributed. The stations will be referred to by name and the latitude also given in degrees and minutes. We have selected March 1 as the central date, and purpose to give a sketch of the bird life of the Mississippi Valley as it would have appeared to one who should have traversed the length and breadth of it during that week.

Beginning in the extreme south, let us glance over the country. We will find everything in the vicinity of Eagle Pass, Texas, 28°⁴⁵, dry and parched. No rain has fallen here since last September. Yet among the trees, already in bud, the Rose-breasted Grosbeak, (*Z. ludoviciana*), appears, well content to make this his Winter home; while in the mesquite bushes below, can be found the nearly completed nests of the Cactus Wren, (*C. brunneicapillus*). On Feb. 29, we might have noted the first Scarlet Tanager, (*P. rubra*).

Passing east along the Gulf coast, to Abbeville, La., 29°⁵⁷, and Mermonton, La.,

30°⁸, we will find the birds moving rapidly. Ducks and Geese nearly all gone; Woodcock disappeared, and Wilson's Snipe fast leaving. Many Purple Martins (*P. subis*), —the first having come Feb. 23—are circling overhead. Indeed, had you visited some of the more favored spots, you could have found a few of them all Winter, and many Barn Swallows, (*H. erythrogaster*), in company with them. The Cactus Wren of Texas is replaced by the familiar House Wren, (*T. aedon*), which we see is an abundant Winter resident. If you have patience, perhaps it will be rewarded by the sight of a Ruby-throated Hummingbird, (*T. colubris*), or glancing upward you may occasionally behold the stately circling of a Swallow-tailed Kite, (*E. forficatus*). Swelling buds and opening leaves are on every side; flies and mosquitoes swarm around, and one has difficulty in believing that at the same time his fellow creatures in Minnesota and Wisconsin are fighting against a temperature of twenty degrees below zero.

Retracing our steps westward, but veering to the north, we find at San Angela, Texas, 31°²², a single Purple Grackle, (*Q. purpureus*). He is the first of his species, and arrived March 3 from his more southern Winter home. None spend the Winter here, while nearer the Mississippi river the Mississippi Valley variety, the Bronzed Grackle, (*Q. p. aeneus*), braves the cold regularly five hundred miles farther north, in Southern Illinois, and occasionally even nine hundred miles farther in Minnesota. Here, too, we will find plenty of Martins,

the first having come Feb. 25. Killdeer, (*O. vociferus*), are abundant; the ranks of Winter residents being already recruited by large reinforcements from the south. We look in vain for Geese and Brant; they, with most of the Ducks, are far on their northward journey.

When we take our next step, though we move but a short distance, we are met by the cold breath of Winter. If we call at Corinth, Miss., 34⁵⁵, our only information will be, "Everything solid; two inches of snow and not a bird stirring." His nearest neighbor, Water Valley, Miss., 34³⁸, deigns the short rejoinder, "Purple Martin came March 1," while if we return to Gainesville, Texas, 33³⁶, we fare no better; "only one arrival, the Phoebe, (*S. fuscus*), on Feb. 27." Let us again move northward to Caddo, Indian Territory, 35⁰⁶. Here we may discern, in the dry grass, great numbers of LeConte's Sparrows, (*C. Lecontei*), lately arrived, Savanna Sparrows, (*P. s. savanna*), by the score, and possibly a shy Yellow-winged Sparrow, (*C. passerinus*). Or, if we approach a swampy thicket we may catch a glimpse of a Lincoln's Finch, (*M. Lincolnii*.) The elm boughs hang full of blossoms, and several species of wild flowers are in bloom, but no grass appears, and on March 2 the flowers were buried in snow.

Once more we move northward and suddenly find ourselves in a region of much activity among the birds. We have reached St. Louis, Mo., 38⁴⁰, and find that many "firsts" have been observed. The hosts of Fringillidæ, which winter all over the country we have passed, are sending out their scouts to observe the land and report on the feasibility of a forward movement. The Goldfinch, (*A. tristis*), White-throated Sparrow, (*Z. albicollis*), Field Sparrow, (*S. pusilla*), Song Sparrow, (*M. fasciata*), Swamp Sparrow, (*M. palustris*), Fox Sparrow, (*P. iliaca*), and Towhee Bunting, (*P. erythrophthalmus*), have each sent out a few individuals, but we can imagine their

reports were not very favorable, as the general advance has not yet been made. In addition, much movement has taken place among the water birds. The first Canada Geese appeared Jan. 22; Mallards and Pintails, (*D. acuta*), came soon after on the last day of the month; by Feb. 22 they had become quite numerous all around St. Louis, and they had been joined by the Green-winged Teal, Little Blackhead, (*F. affinis*), and the Ruddy Duck, (*E. rubida*). On Feb. 25, the Kingfisher came and the same day the first flock of Snow Geese.

This movement of water birds seems to have been more pronounced along the Miss. River than anywhere else in our territory. Passing west to Manhattan, Kan., 39¹², we find a totally different state of affairs. Though but a short distance farther north than St. Louis, near water, and in a good country for water fowl, a long tramp, taken by an excellent observer on March 1, failed to reveal a Duck or a Goose. No White-throated nor White-crowned Sparrows were seen, but in their place a few Harris Sparrows, (*Z. querula*.) The presence of Oregon Snowbirds, (*J. oregonus*), Red-shafted Flickers, (*C. a. mexicanus*), and Western Meadow Larks, (*S. neglecta*), also show the western position of the station. Of the Finches, mentioned as appearing at St. Louis, only the Goldfinch and Song Sparrow have been seen at Manhattan. Certainly the difference in latitude will not account for this great difference in the arrival of the birds.

Upon again moving northward, we find migration is behind us. The waves of migration which reached St. Louis, could have passed but a short distance farther up the river. Many reports have been received from more northern points in Illinois, Missouri and Iowa, but not one makes mention of any water birds. Almost directly west of St. Louis, at Glasgow, Mo., 39¹⁴, a Robin was seen Feb. 2, and a flock of Geese Feb. 1, but no further migration for a month. East of St. Louis, at Odin, Ill.,

38³⁹, Meadow Larks, (*S. magna*), had been seen Jan. 28, Bluebirds Jan. 31, and Geese and Ducks on Feb. 2. Certainly these could not have gone much farther, as at a point forty miles from Odin, almost due north, no Ducks nor Geese were seen until more than a month later, and at St. Louis all day long on March 2, flocks of Ducks were passing southward, driven away by the guns of the hunters and the refreezing of the waters.

North of St. Louis, the only migratory birds we will find are the Robin and Bluebird. These appeared at Hillsborough, Ill., 39¹², on Feb. 25, and at Griggsville, Ill., 39¹³, about the 1st of March.

Turning to Iowa, we find no migration reported, though Coralville, 41⁴⁰, and Mitchell, 43¹⁹, were rejoicing over the presence of flocks of Evening Grosbeaks, (*H. vespertina*), the first ever seen at either place. Moving to Southern Wisconsin, we find a few notes at Lake Mills, 43⁶, where a single Robin appeared Feb. 16, but left immediately. A solitary Red-winged Blackbird also came and was fed by a kind-hearted farmer. When last seen he had been staying about the premises two weeks waiting for Spring and looked rather forlorn and discouraged.

We are now fairly in the land of ice and snow. On March 3, at Heron Lake, Minn., 43⁴⁸, the mercury fell to twenty-seven degrees below zero, and from another point comes the report "the ground is frozen to a depth of four feet four inches." It will be vain to seek here for bird movements, except the quasi-migration of the Shore Lark, (*E. alpestris*), which in the middle of February spread over all this region, even to the middle of the State.—W. W. Cooke, *Caddo, Ind. Ter.*

THE TWELVE-THREAD PLUME BIRD, (*Empimachus albus*). An illustration and description, from *Brehm's Animal Life*, of this remarkable bird appears in the *Scientific American* for March 22d. Rosenberg says not a single collection in Europe has a perfect specimen. We have seen the specimen advertised by Mr. Frank B. Webster in our March number which certainly *appears* perfect.

Notes on Birds of the Northwest Region.

WATER OUZEL (*Cinclus mexicanus*) This is undoubtedly one of the most interesting birds of this region. It is of a lead color, inclined to brown on the head, but elsewhere uniform in color. It is an aquatic bird and feeds on aquatic animal substances. I have often watched them for hours as they fed in the waters of Clear Creek, Wyoming, being perfectly at home in the water. They delight in mountain streams, where the water rushes over huge boulders or takes a leap from some cliff. Here they build their nest, which is a wonderful structure, dome-shaped and with quite a large hole in the side for entrance. The eggs are pure white, elongate and pointed. There is but one place here where their nests have been found, a young naturalist from Chicago tells me, and that is "in Clear Creek Canyon, where the water takes a fall of eighty or so feet. The nest is built under the water, that is, fastened to the rock and between the rock and the falling water. The birds in entering the nest are obliged to pass through the water and the nest is drenched with spray." Their plumage is very compact, wings stiff, tail square and short, bill slender.

GREAT NORTHERN SHRIKE (*Lanius borealis*) This is another interesting bird and breeds as abundantly here as the Robin (*Migratoria*) does in New England. I shot one specimen in December, and have occasionally seen others. Most of them, I think, migrate south, but many stay through the winter. The habit these birds have of impaling their prey on thorns, etc., is well known, but for what purpose I have never found out. I believe it is only done during the breeding season. The nest is a bulky affair of twigs and finished inside with rootlets, generally placed in dense thickets and not very far from the ground. I have never found one

over five (5) feet or under two (2); eggs, from four to six, or even seven; speckled. They are a reckless bird and I have known them to fly violently against the wires of a cage containing a Canary and do it repeatedly, frightening the poor native of the Canary Islands almost to death. I remember once finding a nest near Fort Laramie, which I could not get at except by crawling on my hands and knees under the bushes and reaching up through the thorns, at the expense of my clothes and the loss of considerable skin from my hands. Not satisfied with this, Mr. Shrike had to attack my hand, actually breaking one of the eggs as I took it from the nest. These birds are something like the Mockingbird, and are often mistaken for them by the settlers here.

BOHEMIAN WAXWING (*Ampelis garrulus*.) Took two (2) specimens yesterday (Jan. 30th) from a flock of seventy or eighty on Clear Creek. These are the first I have seen here. These birds agree with Dr. Elliott Coues' description, with one exception, and that is in regard to the white on the under eyelid as in the Cedar Bird (*A. cedrorum*.) Yet these birds are undoubtedly garrulous. I do not like to differ from such an ornithologist as the Doctor, but I will give my description and can show the specimen. Under tail coverts, chestnut; front and side of head, orange-brown color; primary wing coverts, tipped with white; wings, with yellow and white at outer web; chin, black; small black line across forehead and running through eyes meets on back of head, just back of the crest; bill and feet, black; tail, tipped with yellow; white on under eyelid, but none across forehead; 7.9 in. long; wing, 4.2 in. This bird generally retires south, but is occasionally seen during an open winter in large flocks. The prettiest thing about this bird is its curious appendages on the inner quills of the wing, which resemble red wax. Although not a singer, it has a very pleasant

note when heard in winter. I have never yet found signs of insect food in the stomach of these birds, and I am inclined to think they feed entirely on berries and seeds.—Charles F. Morrison, Ft. McKinney, Wyoming.

The Pine Grosbeak.

(*Pinicola enucleator*.)

In the March number of your magazine I notice some statements regarding the Pine Grosbeak. I have been in Potsdam as teacher in the State Normal School in this place since the Fall of '72, and not until last Winter did I ever notice or have my attention called to this bird in this locality. Last winter I mounted six females and one male. There seems to be a great scarcity of the males. A number of my students shot and mounted specimens, and I believe not one secured a male. There were a number of flocks that seemed to quarter in and near town nearly all winter. They, without exception, were always found about apple trees—crabapples ordinarily—eating the frozen fruit on trees. This winter I have only seen one flock, and have heard of only two. I got a female this winter; but for a cap being imperfect I should have had a male. There are usually about a dozen in a flock, seldom more. They were very tame and by some of the citizens of the place taken for Robins. They seem to be in most excellent condition, at least all of mine were. When these birds came here last winter no one knew them, and many asked me about them. Getting a shot at them I was more than pleased to find them a bird that was entirely new to me, a pleasure which no one but a person interested appreciates. My little boy, seven years old, was out with me this winter one day, and some birds flying over our heads, he exclaimed, "Oh! papa, there are some Pine Grosbeaks; shoot me that pretty red one," referring of course to the male. No parent

it seems to me realizes how much good comes from making a collection of birds; not only for their own personal good but for their children or students. My little boy above mentioned, can by the song distinguish almost all of our birds. I wish in your excellent little paper you would urge this work upon your subscribers. Here lies a field of exact knowledge that, except by specialists, is but little worked.—*W. Mann, Teacher of Science in State Normal School, Potsdam, N. Y.*

PINE GROSBEAKS. We have received several further communications respecting the large numbers of these birds that have been seen this winter in various parts of New England, also several instances of their tameness. The large preponderance of females is also generally noted.

THE PINE GROSBEAK IN CONFINEMENT.—I have a male Pine Grosbeak (*Pinicola enucleator*) in confinement, which was captured in the winter of '82. He stood the hot weather in summer well and is now in fine condition, being fat and in full plumage. When caught he was of an ashy brown color, except back of head and rump were tinged with yellow. In the fall of '83 he came out in a coat of bright yellow wings, and tail nearly black, wing bars white. I suppose he would have been red in place of the yellow if he had been at liberty. Last month (January) I captured three more, one male and two females, by slipping over their heads a slip noose made of horse hair and attached to a slender pole. So I have now two pair and am in hopes of getting a clutch or two of eggs this spring. I feed them on corn meal mixed with sweet milk, also apple seeds and beech nuts. They are especially fond of the buds of the pine and spruce and the seeds that they get from the cones. They are quite good singers, and both male and female sing. The former louder and more musical than the latter.

Their song is generally a low warble audible but at a short distance, though they sometimes sing a louder note which somewhat resembles that of the Rose-breasted, (*Zamelodia ludoviciana*). In answer to P. S. U. would say the red males are quite common here in winter.

I am uncertain about the whistling sound made while flying, but think it is not made by the wings.—*G. F., Union, Maine.*

NOTES FROM BAY CITY, MICH. If, as you request, I am to furnish some notes for the April number with so short a notice, I must scurry about and from the leavings and pickings concoct as palatable an ornithological hash as possible under the circumstances, trusting that the more ingredients there are the better it will be relished. Let us first take up the birds in and about our city the past winter. The English Sparrow, of course, has been with us all winter as they drobably will be forever, and we must believe in greatly in-

creased numbers, for they are now (March 18th) generally throughout the city busily constructing their nests. The Black-capped Chickadee as well as the Downy Woodpecker and White-bellied Nuthatch have occasionally visited us in the heart of the city, and on March 1st a small flock of Horned Larks ventured well in on one of the main streets. On two occasions a few Bohemian Waxwings were noted. Snowbirds (*P. nivalis*), have been hardly as plenty as in the winter of '82-'83, although frequently seen on the river. On Nov. 19th the Pine Grosbeaks arrived, remaining until the 10th of the present month, when I guess we saw them for the last time this season. In the winter of '82-'83 this species remained an unusually long time in the State of Maine. I first noted them Nov. 4, 1882, in the city of Bangor. They were constantly with us until the first of February, when I visited this State (Michigan), and on my return, the middle of March, they were still there and remained until the 4th of April, when they were noted for the last time, just five months from the day of their arrival. Let us now see what notes we have on the birds of the pineries. The past few months I have made several trips to the northern forests, partially for the purpose, if possible, to add evidence to a statement made by myself some time ago in this paper, that the Black-backed Woodpecker, (*P. articulus*), was not an uncommon winter resident of our pine forests; in this I have been unsuccessful; but will say that I have notes, other than those now recorded, of its capture in this State which I am in hopes to give you in time.

The first week in November I was encamped on the north branch of the Au Sable, surrounded for miles with barren Norway plains. We found the locality somewhat barren of bird-life, although the cedar swamps lining the shores of the stream, abounded in the Ruffed Grouse and Spruce Partridge, (*T. canadensis*), the latter generally considered not plenty south of Mackinaw. A few of the smaller, common species were noted, while an unknown Owl paid us nightly visits. Frequent trips to the south branch of the Pine and Rifle rivers have added no new or rare specimens to my collection; but I have hardly ever failed to find the following abundant about the logging-camps: Hairy, Downy and Pileated Woodpeckers, Black-capped Chickadees, White-bellied Nuthatch, Brown Creepers, Blue Jays, Canada Jays, Ruffed Grouse, and Barred Owl, with the Snowy Owl and Raven on one occasion. We will now go back a little as to the season and close with some condensed notes on the Fall migration of the Ducks in this locality in 1883. At the opening of the shooting season, Sept. 1st, the Wood Duck was found quite plenty, probably the larger part raised in the immediate vicinity of the marshes; they, with the Lesser Scaups, constituted the bulk, while the Red-breasted Merganser was noted. The Teels had hardly put in an appearance. On the 23d the Blue-winged Teel had become plenty, while the Red-heads had arrived in some numbers. Wood Ducks about the same as on the 1st. Oct. 7th the Red-heads and Greater Scaups composed the main body, while on the 14th the Red-heads were exceedingly abundant; of forty Ducks taken by one sportsman in about an hour, all were of this species. Oct. 16th, 20th and 22d, I obtained from different sources fresh specimens of the Surf Duck, (*O. perspicillata*), as also on the 22d an American Black Scoter, (*O. americana*.) The specimen of the Surf Duck procured on the 16th was given in the January O. and O. as the first for this State, which Dr. Gibbs since writes me stands good. Buffleheads, (*B. albola*), reached us on the 23d of October, and last and least the Ruddy, (*E. rubida*), on the 27th. A severe cold snap the fore part of November practically closed the season, at least, as far as the sportsmen were concerned.—*N. A. Eddy, Bay City, Mich.*

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

The Tribulations of a Persistent
Collector.

Accompanied by my friend, Mr. Emerson, I left San Francisco on the morning of January 10th last, on the steamship "Orizaba," intending to spend a time collecting in Southern California, my objective point being San Diego. Before sailing, we congratulated ourselves that we had designated a day for our departure, that brought with it every indication that the three days' voyage before us would be pleasant and the sea smooth; but at the end of the first hour out, we felt like the Apache soldier who wanted to "go home." The angry waves showed us no mercy, and the fish reaped a harvest sufficient to comfortably maintain themselves until our return. On the morning of the third day San Diego was reached and without making any stop we proceeded to Poway Valley, twenty-three miles distant. Here we tarried one week and accomplished good work on the field, taking a large number and a satisfactory variety of birds, including Bell's Sparrow (*Amphispiza Belli*), Western Grass Finch (*P. gramineus conatus*), Western Savannah Sparrow (*P. sandwichensis alaudinus*), Rock Wren (*Salpinctes obsoletus*), Chapparral Cock (*Geococcyx californianus*), etc. We care-

fully placed away the result of our labor, but upon examining the specimens as we were about to leave the valley, we were surprised to discover that they had been visited by mice and that many had been destroyed. Profanity is unknown to my companion—he said simply "Gosh," and we determined to make up the loss, if possible, by more active work. We then departed for the mountains, about fifty miles distant, depending upon California mustangs for locomotion. On the night of the second day we reached our destination, and again tarried and have tarried since and are likely to stay for some time to come. We had two beautiful days next after locating here, and then a terrible rain and wind storm commenced which continued with unabated fury for five days; then followed a lovely day and signs of continuing pleasant weather appeared on every hand, but the storm again set in that night with increased violence and it has rained incessantly since. The fog has been so dense that we could not prudently venture 300 yards from the camp. We are in an altitude of about 6,000 feet, living in an old adobe hut; no other "house" in the mountains; nearest neighbor seven miles distant, down the mountains; stormed in and "dighting" on fresh pork and honey. It is impossible at any time to ascend the mountains with a team, and the trail is so steep that descent on horseback is also impossible. We spend most of our time in unsuccessful efforts to keep dry—our "bunk" is in the driest spot in the house, but it is the receptacle of four streams of water leaking through the roof and night before last our underclothes were well washed, because of our failure to place them under the bed blankets, as usual, before retiring. Yesterday morning, upon getting up, the writer found one of his boots half full of water. Such are some of the experiences of an unfortunate collector. We are seventy-three miles from the nearest railroad or tele-

graph station and "still we are not happy." Our tobacco is wet and we cannot get it dry. Beans, potatoes, milk, butter, etc., are luxuries unknown. Our flour is exhausted. An Indian has been occupying this hut, herding hogs on the mountains. Fortunately our Winchester is in good condition, and when we need meat we can help ourselves. Wild bees are plentiful here. Trees well stored with honey are not hard to find; hence our diet of pork and honey. We will ornament our bill of fare by adding "bread" thereto, as soon as the storm sufficiently subsides to enable us to go to a store for flour. It is a trifle inconvenient now, but these experiences are pleasant to think of when they become matters of the past. During the pleasant days here we had excellent luck with the gun, securing such rare and interesting birds as Townsend's Solitaire (*Myiadestes Townsendi*), Mountain Chickadee (*Parus montanus*), Townsend's Sparrow (*Passerella iliaca unalascensis*), Golden-crowned Sparrow (*Z. coronata*), Mountain Quail (*Oreortyx picta*), etc., etc., but the specimens have suffered with other things, and nearly all have been ruined because of our inability to keep them dry. Thus has misfortune attended us, but we

"Cheer up and don't grow weary
And will wait till the clouds roll by."

Although the storm has been raging for over two weeks and there is now no indication of its end being near, we have not even thought of becoming discouraged and shall be all the more energetic and persistent, and we feel that our efforts will yet be rewarded by a large and satisfactory ornithological harvest.—William C. Flint, San Francisco, Cal.

Summer Birds of Locke, Michigan.

A list of the birds seen or captured in the township of Locke, in June, July and August, 1883. The asterisk (*) prefixed to a species, indicates that it has been known to breed either in this or previous

years. The annotations have reference only to the year and months specified above. This township is situated twenty miles east of Lansing, the capital of the State, lat. 42 deg., 42 min., N.; long. 7 deg., 16 min. W. of Washington.

1 * Robin, (*Turdus migratorius*.) abundant.

2 * Wood Thrush, (*Turdus mustelinus*.) rare.

3 * Catbird, (*Mimus carolinensis*.) common.

4 * Brown Thrush, (*Harporrynchus rufus*.) rare.

5 * Bluebird, (*Sialia sialis*.) abundant.

6 Blue-gray Flycatcher, (*Polioptila caerulea*.) rare.

7 * Chickadee, (*Parus atricapillus*.) rare.

8 * White-bellied Nuthatch, (*Sitta carolinensis*.) rather common.

9 * House Wren, (*Troglodytes domestica*.) rather common.

10 * Horned Lark, (*Eremophila alpestris*.) rather common.

11 * Black-and-white Creeper, (*Mniotilla varia*.) rare.

12 * Yellow Warbler, (*Dendroica aestiva*.) rather common.

13 * Chestnut-sided Warbler, (*Dendroica pennsylvanica*.) rare.

14 * Golden-crowned Thrush, (*Siurus auricapillus*.) not common.

15 * Large-billed Water Thrush, (*Siurus motacilla*.) rare.

16 * Maryland Yellow throat, (*Geothlypis trichas*.) not common.

17 * Hooded Warbler, (*Myiodioctes mitratus*.) not common.

18 * Redstart, (*Setophaga ruticilla*.) rare.

19 * Scarlet Tanager, (*Pyranga rubra*.) rather common.

20 * Barn Swallow, (*Hirundo horreorum*.) abundant.

21 * White-bellied Swallow, (*Tachycineta bicolor*.) rather common.

22 * Cliff Swallow, (*Petrochelidon lunifrons*.) rather common.

- 23 * Purple Martin, (*Progne purpurea*), rare.
- 24 * Red-eyed Vireo, (*Vireo olivaceus*), common.
- 25 * Warbling Vireo, (*Vireo gilvus*), abundant.
- 26 * Yellow-throated Vireo, (*Vireo flavifrons*), rare.
- 27 * Yellowbird, (*Chrysomitis tristis*), abundant.
- 28 * Bay-winged Bunting, (*Poecetes gramineus*), abundant.
- 29 * Song Sparrow, (*Melospiza melodia*), abundant.
- 30 * Snow Bird, (*Junco hyemalis*), rare.
- 31 * Chipping Sparrow, (*Spizella socialis*), abundant.
- 32 * Field Sparrow, (*Spizella pusilla*), abundant.
- 33 * Rose-breasted Grosbeak, (*Goniaepea ludoviciana*), rare.
- 34 * Indigo Bird, (*Cyanospiza cyanea*), abundant.
- 35 * Towhee Bunting, (*Pipilo erythropthalmus*), common.
- 36 * Bobolink, (*Dolichonyx oryzivorus*), common.
- 37 * Cow Bunting, (*Molothrus ater*), common.
- 38 * Red-winged Blackbird, (*Agelaius phoeniceus*), abundant.
- 39 * Meadow Lark, (*Sturnella magna*), common.
- 40 * Baltimore Oriole, (*Icterus baltimore*), rather scarce.
- 41 * Purple Grackle, (*Quiscalus purpureus*), common.
- 42 * Common Crow, (*Corvus americanus*), abundant.
- 43 * Blue Jay, (*Cyanurus cristatus*), common.
- 44 * King Bird, (*Tyrannus carolinensis*), common.
- 45 * Great-crested Flycatcher, (*Myiarchus crinitus*), rare.
- 46 * Phœbe Bird, (*Sayornis fuscus*), abundant.
- 47 Wood Pewee, (*Contopus virens*), rather common.
- 48 Acadian Flycatcher, (*Empidonax acadicus*), rather common.
- 49 Trail's Flycatcher, (*Empidonax tridillii*), not common.
- 50 * Least Flycatcher, (*Empidonax minimus*), not common.
- 51 * Whippoorwill, (*Antrostomus vociferus*), common.
- 52 * Night Hawk, (*Chordiles virginianus*), rather common.
- 53 * Chimney Swallow, (*Chaetura pelagica*), abundant.
- 54 * Ruby-throated Humming Bird, (*Archilochus colubris*), not common.
- 55 * Kingfisher, (*Ceryle alcyon*), rare.
- 56 * Black-billed Cuckoo, (*Coccyzus erythrophthalmus*), rare.
- 57 * Hairy Woodpecker, (*Picus villosus*), rather common.
- 58 * Downy Woodpecker, (*Picus pubescens*), rather common.
- 59 * Yellow-bellied Woodpecker, (*Sphyrapicus varius*), rather common.
- 60 * Red-bellied Woodpecker, (*Centurus carolinus*), rare.
- 61 * Red-headed Woodpecker, (*Melanerpes erythrocephalus*), rare.
- 62 * Golden-winged Woodpecker, (*Colaptes auratus*), common.
- 63 Great-horned Owl, (*Bubo virginianus*), rare.
- 64 Red Owl, (*Scops asio*), rare.
- 65 * Marsh Hawk, (*Circus cyaneus, var hudsonius*), rare.
- 66 * Red-tailed Buzzard, (*Buteo borealis*), rare.
- 67 * Red-shouldered Buzzard, (*Buteo lineatus*), rather common.
- 68 * Rough-legged Buzzard, (*Archibuteo lagopus, var sancti-johannis*), rather common.
- 69 * Bald Eagle, (*Haliaeetus leucocephalus*), rare.
- 70 * Wild Pigeon, (*Ectopistes migratorius*), rare.

71 * Mourning Dove, (*Zenædura carolinensis*,) common.

72 * Ruffed Grouse, (*Bonasa umbellus*,) not common.

73 * Quail, (*Ortyx virginianus*,) common.

74 * Killdeer, (*Egialitis vociferus*,) not common.

75 * Spotted Sandpiper, (*Tringoides macularius*,) rare.

76 * Great Blue Heron, (*Ardea herodias*,) rare.

77 * Stake Driver, (*Botaurus lentiginosus*,) rare.

78 * Sand-hill Crane, (*Grus canadensis*,) rare.

79 Virginia Rail, (*Rallus virginianus*,) rare.

80 Wild Goose, (*Branta canadensis*,) a small flock passed over my house the last week in August.—*Dr. H. A. Atkins, Locke, Michigan.*

Arrivals of Birds in N. J. in 1883.

It will no doubt be interesting to many of your readers and students in Ornithology to have statements similar to the following published from different parts of the country. I took considerable time last season in watching the arrival of our birds, and below is the result for this locality. Names and numbers according to last Smithsonian list :

7 American Robin.....	March 3
278 Purple Grackle.....	" 10
315 Phoebe Bird	" "
261 Red-wing Blackbird.....	" "
525 Woodcock	" 11
235 Fox-colored Sparrow.....	" "
253 Cowbird Blackbird.....	" 20
526a Wilson's Snipe.....	April 3
495 Night Heron.....	" 5
487 Great Blue Heron.....	" 6
378 Yellow-shafted Flicker.....	" "
460 Mourning Dove.....	" "
95 Yellow-rump Warbler.....	" 8
211 Chipping Sparrow.....	" "
312 Great-crested Flycatcher.....	" 9
214 Field Sparrow.....	" 10
155 White-bellied Swallow.....	" 13
197 Grass Finch.....	" "
193a Savannah Sparrow.....	" 14
5b Hermit Thrush.....	" "
• 113 Red-poll Warbler.....	" 15
237 Chewink	" 20

74 Black and White Creeper.....	April 21
13 Brown Thrasher.....	" "
233 Swain Sparrow.....	" 24
111 Pine-creeping Warbler	" "
63 House Wren	" 25
207 Black-throated Green Warbler.....	" 27
141 Blue-headed Vireo.....	" 28
557 Spotted Sandpiper.....	" "
154 Barn Swallow.....	" "
351 Chimney Swift.....	" "
304 King Bird.....	May 1
1 Wood Thrush.....	" 2
115 Golden-crowned Thrush.....	" "
139 Warbling Vireo.....	" 4
123 Yellow-breasted Chat.....	" 7
83 Blue Yellow-backed Warbler.....	" "
271 Baltimore Oriole.....	" "
12 Catbird.....	" "
248 Indigo Bunting.....	" "
270 Orchard Oriole.....	" 8
99 Chestnut-sided Warbler.....	" "
140 Yellow-throated Vireo.....	" "
354 Whip-poor-will	" "
94 Black-throated Blue Warbler.....	" "
93 Summer Yellowbird.....	" 9
85 Nashville Warbler.....	" "
122 Maryland Yellowthroat.....	" "
128 American Redstart.....	" "
143 White-eyed Vireo.....	" "
244 Rose-breasted Grosbeak.....	" "
116 Small-billed Water Thrush.....	" "
2 Wilson's Thrush.....	" "
326 Least Flycatcher.....	" "
550 Solitary Tattler.....	" "
102 Blackburnian Warbler.....	" "
127 Canadian Flycatching Warbler.....	" 10
257 Bob-o-link.....	" "
494 Green Heron.....	" "
101 Black-poll Warbler.....	" 11
335 Ruby-throated Hummingbird.....	" 12
97 Black and Yellow Warbler.....	" "
358 Black-billed Cuckoo.....	" 13
79 Blue-wing Yellow Warbler.....	" "
161 Scarlet Tanager	" 14
125 Green Black-capped Flycatching Warbler	" 15
135 Red-eyed Vireo.....	" 20
198 Yellow-Winged Sparrow.....	" 21
77 Worm-eating Warbler.....	" 23
120 Mourning Warbler.....	" 27
257 Night Hawk.....	" 28
387 Yellow-billed Cuckoo.....	" 29

—*H. F. Barrell, New Providence, Union County, New Jersey.*

Notes from Taftsville, Vt.

Dec. 30, 1883, I saw a fine male Cowbird, (*Molothrus ater*,) in the stock-yard, eagerly picking up corn and oats, of which he took a surprisingly large quantity. He was very tame, allowing me to approach within three feet of him. Fortunately for him and subsequent observations it was Sunday. The same bird remained about here for a

month and was a regular visitor in the farm-yards of this vicinity, becoming quite a well known character; the mercury in the meantime was thirty degrees below zero several times.

Feb. 5, I saw a Song Sparrow. They are very rarely seen here in Winter. Purple Finches, Goldfinches and Pine Linnets have been very abundant nearly all Winter. Their food has been, principally, the seeds of the yellow birch, of which there is an abundant supply here. Pine Grosbeaks first noted Jan. 11, they soon becoming abundant. For three weeks they were only to be met with in the forests, where they completely stripped the maple trees of "keys," the seeds of which formed their principal food. Then they suddenly came to the orchards and partook of what has in former years been their favorite food, frozen apple seeds. Males in the red plumage were quite common. Saw the last of them Feb. 11. Bird life has been very abundant here all Winter.—C. O. T.

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE,
(INCLUSIVE,) 1883.

PART II.

FEB. 3. There has been a remarkable change in the weather since yesterday—the thermometer rising from sixteen deg. to sixty deg. About the middle of the day there was a heavy shower of rain.

During a two or three miles drive, caught sight of the following birds: A Hawk sailing in wide circles in the air, which I judged to be the Red-tailed Hawk or Buzzard, (*Buteo borealis*), a Ruffed Grouse, or Pheasant, (*Bonasa umbellus*), which flew across the road not twenty yards in front of me, near a small wood, three or four Bluebirds, (*Sialia sialis*) in one company, the first and only ones I have seen thus far this winter, two Hairy Woodpeckers, (*Picus villosus*), commonly known as the large "Sapsucker," a Tufted Titmouse, a Song Sparrow, (*Melospiza melodia*), two Cardinal Grosbeaks, and numerous White-bellied Nuthatches—eight species during a thirty minutes' drive along the public road on a winter's day, not including the Snow-birds and Tree Sparrows, which, strange enough, I failed to see!

FEB. 7. At different times during the day two or three Downy Woodpeckers and as many Nuthatches have made their appearance among the small trees and grape-vines in my yard. A day or two ago my company of feathered visitors were two Tufted Titmice and several Nuthatches. Next to the Snow-birds and Sparrows the White-bellied Black-capped Nuthatches, (*Sitta carolinensis*), are far the most numerous of our winter birds.

FEB. 8. In passing a small wood on foot saw my first

specimen during the winter of the Black-capped Titmouse or Chickadee, (*Parus atricapillus*). Was much interested in the activity of its motions while searching for food. Although approximating it in size, color and habits, this species may readily be distinguished, even by the most inexperienced observer, from the Nuthatch, by its longer tail and shorter bill, and in its more restless and active movements. The latter nearly always betrays itself by its *quank, quank*, when you will see it perambulating the trunk of a tree, mostly head downward, in search of the eggs or larvae of insects. The ordinary note of the former bird is *chick-a-dee-dee*, which gives it its more familiar name.

FEB. 10th. Before entering my study this morning took a walk into a neighboring wood, and was repaid by seeing the most interesting group of birds I have met with this winter—consisting of Nuthatches, Hairy and Downy Woodpeckers, and Tufted and Black-capped Titmice, from two to half a dozen or more of each, perhaps a score in all, all in one loose flock on neighboring trees, or on the ground (being bare), together with a Golden-winged Woodpecker, (*Colaptes auratus*), the presence of the latter perhaps being accidental. During the same brief excursion saw also a Cardinal-bird, a pair of Song Sparrows and a Meadow Lark, (*Sturnella magna*). The last and the Golden-winged Woodpecker were the first of their respective species I have seen this winter. The Meadow Lark is for the most part migratory, the Golden-wing but partially so. The last named has many *aliases*, the most familiar of which are Flicker, High-hole and Yellow-hammer. The Meadow Lark's yellow breast and black crescent on it, and white tail feathers, with his sweet plaintive whistle, if in song, will sufficiently identify him.

FEB. 12. The whistling notes of the Cardinal Grosbeak repeatedly caught my ear during the morning from the thickets of the opposite hill—save that of the Wren, the first bird song of the season. There is an old saying here in substance—the Redbird's song in February is the prophecy of an early Spring, but this I believe to be no unusual thing.

FEB. 13. Saw a remarkable instance of the domestication of wild birds in a state of freedom. While making a call upon a family in the country, a pair of Cardinal Grosbeaks alighted on the sill of the window at which I was sitting, seemingly perfectly indifferent to my presence. On expressing my surprise the people explained that some two years ago they began the practice of scattering bread crumbs and a little grain on the window sill to treat and attract the birds. Among others to discover this gratuitous fare was the above pair of Red-birds, who soon acquired the habit of coming regularly morning and evening for their free rations, all the time growing less shy and more familiar and confident. During the last summer they were accustomed to perch on the sill of an open window and feed with perfect fearlessness, though the room was constantly occupied, and even though one might be sitting at an arm's length. Since their first appearance they have never been known to disappear for a single day from the immediate neighborhood, but may be seen at almost any hour near or about the house—on the window sill, porch-railing, fence or garden shrubbery. The last season they nested in a honeysuckle bush in the front yard, scarcely a rod from the house, and raised one brood. On leaving the house to-day passed within two or three yards of the male bird without its taking wing.

Started up a flock of Quail (*Ortyx virginianus*) at the roadside.

FEB. 15. The feathered "harbingers of Spring" were remarkably numerous. The day was warm and spring-like with numerous brief showers. During a short drive saw a flock of about a dozen noisy crows, (*Corvus americanus*),

which I believe is their first appearance in this vicinity this season; also numerous Bluebirds in their liveliest song; also the Song Sparrow warbling its sweetest notes; also a couple of Meadow Larks, and many other birds hitherto noted. "The heart of winter is broken."

FEB. 16. Rarely could there have been a more spring-like day than this in the month of February. Clear and calm throughout, and the thermometer reaching 70°. Without going outside of my yard heard the familiar notes or song of the following early spring birds: the Robin (their first appearance) the Bluebird, the Song Sparrow, the Cardinal-bird and the Wren. Saw also the Crow and the Meadow Lark. During almost the entire morning the Cardinal, the Bluebird and Song Sparrow were all in full song. These three, it is worthy of emphasis, are not only among the earliest of our singing birds in spring, but also among the most lasting, all continuing in song throughout the spring and summer months, and even into the fall. Of the three the Song Sparrow is the most constant singer, after once "opening the season," rarely suspending its song on account of a cold spell which is sufficient temporarily to silence the others.

FEB. 28. Since my last entry the weather for the most part has been severely cold, with numerous light snow falls, and for several days neither Robin nor Bluebird was to be seen, but to-day both have again made their appearance. Observed a small Hawk flying over an open field, and, in its course, at the height of about fifty feet, suddenly stop and poised itself with vibrating wings for full thirty seconds, possibly reconnoitering the ground below for game. On resuming its flight it passed so near me overhead—alighting on the topmost branch of a tree not far distant—I was enabled to fully recognize it as the Sparrow Hawk (*Falco sparverius*.)

MAR. 3. Counted sixty odd Crows in one straggling flock heading in a southeasterly direction.

Saw a flock of about fifty American Goldfinches or Yellowbirds (*Chrysomitis tristis*), the first to meet my eye since late fall, although it is common for small flocks of these birds to remain with us throughout the winter. The inexperienced observer would scarcely recognize these birds in their sombre winter dress as the brilliant Yellowbird of Summer.

MARCH 5. Saw three separate flocks of Red-winged Blackbirds (*Agelaius phoeniceus*), of about fifty each, during one drive of a few miles along a valley road, mostly feeding in the open fields. These flocks seemed to consist wholly or largely of male birds. In many of them the wing-patch was somewhat obscure, and rather inclining to yellowish, indicating, perhaps, the young birds of the last year.

MARCH 9. Saw a small flock of Purple Grackles or Crow Blackbirds, (*Quiscalus purpureus*.) A few Red-wings were associated with them in the same flock. Heard the chant of the Meadow Lark, the cooing of the Dove, the carol of the Robin and the call of the High-hole. "The time of the singing of birds has come."

MARCH 16. Saw a winter-wren (*Troglodytes hyemalis*), about a brush-heap near a small stream. This may readily be distinguished from other wrens by its shorter tail which is always erect. It is also the smallest of the family.

MARCH 18. "Kill-deer, kill-deer," were the new bird notes to greet my ear to-day. (*Egialites vociferus*.)

MARCH 19. Caught sight of the Blue Jay, (*Cyanocitta cristata*), three or four in one company. These, although no uncommon winter residents, have hitherto escaped my notice. Saw a Passenger Pigeon (*Ectopistes migratoria*) feeding in a corn-field singly and alone, perhaps a straggler from some passing or neighboring flock.

MARCH 27. Rode up to within five or six yards of a Hawk

that was perched on a low limb reaching out over the road, affording me a reasonably fair view. Its back, which was towards me, was a light brown mottled with grey, and in size it was about midway between our two most familiar representatives of the two extremes of the family of Sparrow and Red-tailed Hawks. I judged this to be Cooper's Hawk, alias Chicken Hawk, (*Accipiter cooperii*). I only make this entry for the sake of saying that my list of birds does not do justice to the Hawk and Owl families, of which many individuals, especially of the former, have come under my observation since beginning this journal, and only in a single instance could I place identity beyond a doubt. A long-ranged gun is mostly necessary to settle the matter. It is no unusual thing for the Snowbirds to come into song before leaving us in the spring. Heard numbers of them to-day warble out some simple but very sweet notes.

MARCH 30. This morning found the ground covered with four inches of snow, and still falling, nor did it cease before the middle of the day, when it measured quite six inches. It was interesting during the morning, amid the thickest of the falling snow, to hear the Robins warbling their sweetest lays; the Carolina Wren also seemed to be more than usually animated in his song.

It is worthy of note that as early as the 18th of this month, having made a pocket memorandum of it at the time, one or two of the last named birds, (*Thryothorus ludovicianus*), began building a nest in my stable, occupying a last year's Barn Swallow's nest, attached to a rafter, as the foundation of their structure, at which they worked with great diligence for several successive days, and then apparently abandoned it. To-day I examined this new wren fabric and found it to be a perfectly and most ingeniously formed nest—the sides being raised and the whole completely arched over, with a small circular opening at the side leading to the very bottom of the Swallow's nest, which I could only reach with a six-inch pencil. The materials consisted of dry grass, leaves, feathers and horse-hair. Whether this proves more than what Jardine calls a mere "cock nest," or possibly temporary roosting quarters, remains to be seen. In other years I have known these birds to roost, a large part of the winter, in a Barn Swallow's nest which they themselves had lined with the fluff feathers of chickens.

MARCH 4. We had to-day the first genuine spring weather since the opening of the spring months, and during the morning the air was full of bird music. Within a very brief time, without going beyond the bounds of my yard, readily recognized the notes or song of as many as eleven different species. Observed a pair of Turtle-doves building a nest in an apple tree in my lot—the first nest-builders of the season.

Brief Notes.

WOODPECKER AND OWL.—Some few years since a friend of the writer found in the end of a hollow limb, about six inches thick, a full grown Red-headed Woodpecker, at the bottom of the cavity. About six inches from the bottom was a small hole, in which was firmly fixed a Screech Owl with its claws clinched in the head of the Woodpecker; its head was also inside the hole, but wings outside. They were both quite dead when found, the limb having blown down. Do Screech Owls often attack a bird as large as the Red-head? I helped to preserve them in the position they occupied when found. I also once found a Mourning Dove nesting in an old Robin's nest. It had young ones in, and was about seven feet from the ground, on a horizontal limb of an apple tree. Is it of common occurrence?—R. J. Tozer, Cleveland, Ohio.

FORK-TAILED FLYCATCHER. I have lately received from a dealer in California curiosities at Santa Monica, Cal., a fine specimen of the Fork-tailed Flycatcher, (*Milvulus tyrannus*), which was shot near that place in the latter part of the Summer of 1883. Knowing that this bird is of comparatively rare occurrence in the United States and especially in the western parts (where I have never seen any record of it heretofore,) I thought you might consider it worthy of a note in the O. and O.—G. L. Toppin, Chicago, Ill.

AN ORIOLE'S NEST. In 1878 a Baltimore Oriole built its nest in an elm in front of our house. In '79 it returned and fixing it a little raised its young. In '80 it did the same. In '81 some White-eyed Vireos carried away part of it and the Orioles built another. In '82 they patched up the old one and used it. They did the same in '83, making five years they have used one nest. It is still hanging, and whether they will use it again is a question.—J. W. Thurber, Nashua, N. H.

GREAT-HORNED OWLS EGGS. On the 15th of March three of us went hunting Owls nests. In a very large pine tree we saw a nest resembling the Crows. After clubbing the tree with the climbers, an Owl flew off the nest and as she did so an egg dropped, and a large young one was seen. On going up to the nest, one egg and the bones of an animal were found. The nest was eighty-five feet from the ground. We saw the Owl three times, and could have easily shot her. The broken egg was mended and the set is complete.—S. W. Comstock, Greenfield, Mass.

SOME PHASES OF ALBINISM. In looking over my records of ornithological oddities, I find numerous instances of Albino Birds, which although of frequent occurrence, yet are quite interesting. Hoping to hear from other observers, I give mine as a commencement. My first Albino was a Black Spanish chicken, which with an ample pedigree of black ancestors, persisted in showing the white feather, after the first moult.

The next, a Chipping Sparrow, adorned with white primaries and tail coverts.

A Snow Bird differed from his fellows in wearing a snow white breast and crown.

A friend while out hunting shot at a crow flying overhead, and among the even half dozen of quills, the only result of his shot, were three pure white in color.

By a singular coincidence a Quail and Woodcock, each with white wings and breasts, were found in my gamebag, after a September day's shooting,

A Robin prided himself on possessing a white head, the rest of his body being unusually dark, while a Cat Bird sported a white tail in an equally conspicuous manner. Such are a few specimens I have seen. A friend writes me, he has shot a White Grouse with pink eyes, while another tells of a White Teal and Kildeer Plover.

These are a few illustrations of Albinistic specimens, and I must ask some more learned ornithologist to explain the cause of the appearance of these white patches. I will give another instance. Wishing to procure a specimen of the Chimney Swallow, I fired at one with a small charge of dust shot just as it was about to dive down the chimney. I missed, but tore a mass of feathers from its back. The next season, a swallow was seen with a white patch between the wings. As they return to the same place to breed I surmised it to be the one I had half plucked the year before.

Therefore Albinism *might* be produced by hurts received. There must be a cause. Will some one explain it? It surely is not a stage of plumage, confined to the period of old age.—F. H. C.

BRUNNICH'S GUILLEMOT. (*Lomvia arra Brunnichi*) A fine specimen of this Guillemot was sent to me to mount

last week; it was shot on Great Bay on the Atlantic coast about seven miles from Absecon, N. J.—rare in this latitude.—W. J. Sherratt, Philadelphia, Pa.

OUR BIRDS IN THEIR HAUNTS. Mr. J. H. Langille writes us that his book under this title, so long in preparation, is now coming out.

BULLETIN OF THE NATURAL HISTORY OF THE STATE OF MASSACHUSETTS. A monthly periodical under the above title is, we understand, to be shortly issued under the guidance of Mr. W. A. Stearns.

We understand the Linnaean Society of New York expect to issue a second volume of their Transactions in May next. We can only hope it will be as excellent as the one already issued.

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

We hope for the future to mail our monthly edition on the first of every month. Communications should be sent in as early as possible. Nothing received after the 20th, can be noticed in the number for the following month.

Several complaints have reached us of the non-receipt of the February number. The utmost care has been taken to mail each number to every subscriber on our list, and any who write us that they have not received their copies will be at once supplied with a duplicate. We find it of general advantage that all subscriptions should begin with the volume, and therefore we invariably send the numbers from January to all subscribers. The specimen January number was a special issue, and subscribers require the regular January number to complete their series.

NOTES FROM HARTLAND, VT. (O. and O., IX., p. 35.) We regret that through an oversight the name of this place was printed Conn. Several correspondents point out to us the improbability of the Great Northern Shrike, (*Lanius borealis*), nesting at Hartland. We should be glad to hear further from Mr. F. M. Goodwin, and to know whether the birds or eggs are in existence. The fact was unusual and as such worthy of note, but we see no reason, so far, to deny the accuracy of our correspondent.

NOTE FROM GRAVENHURST, ONT. (O. and O., IX., p. 36.) Pigmy Owl should read Saw-whet Owl.

A correspondent (*Ira W. Shaw*) asks if the Eider Duck or the Ruffed Grouse have been known to breed in confinement.

S. ALBERT SHAW. There is nothing uncommon in what you relate.

J. ANTHONY, JR. Would insert your note as its accuracy is vouched for, but it has unfortunately been mislaid.

EDWARD C. EVERMAN. We hope you will succeed in getting the eggs of the Red-tailed Hawk whose nest you are watching.

Several interesting articles are unavoidably postponed until next month.

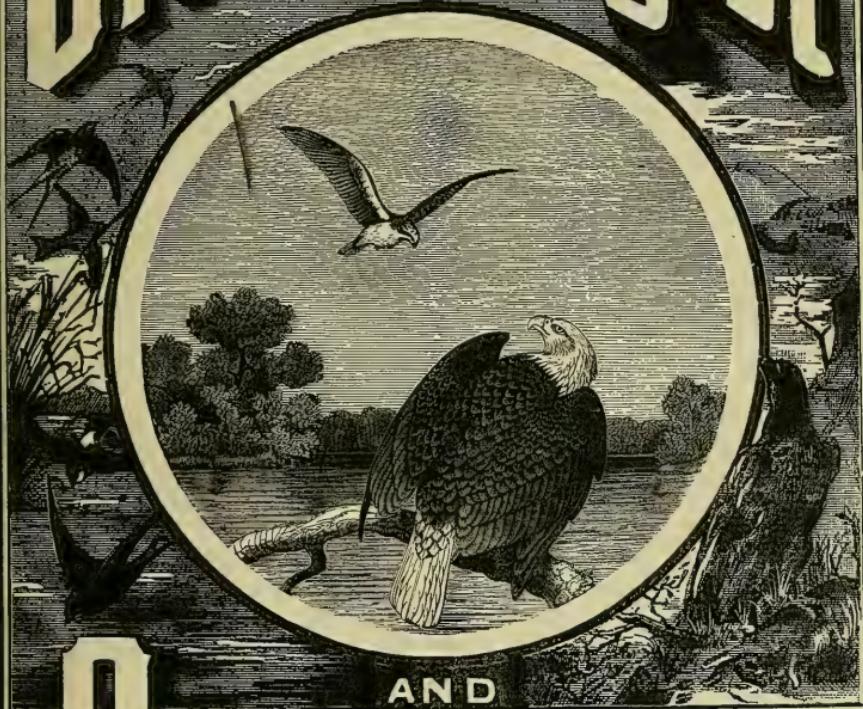
RECEIPT FOR TANNING. For one calf skin, sheep skin or dog skin: $\frac{1}{2}$ pound sulphate of soda, 3 ounces sulphate of potash, 2 ounces sulphur, $\frac{1}{2}$ pound alum, 3 ounces salt, mixed in 1 quart of water. Spread it on the flesh side of the skin and fold in middle—flesh side to flesh side. Let it remain for three or four days, then hang up to dry; it will be found perfectly tanned, soft and pliable. For a small hide or robe, double the quantity.

MAY, 1884.

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W. K. KNOWLTON, MINERALOGIST,

DEALER IN

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BOSTON.

INDEX.

We have prepared an Index of Contents and Contributors to Volume VIII, on the same plan as that for previous volume. It will be mailed on receipt of 12c. Now Ready.

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VOL. IX.

PAWTUCKET, R. I., MAY, 1884.

No. 5.

Migration in the Mississippi Valley.

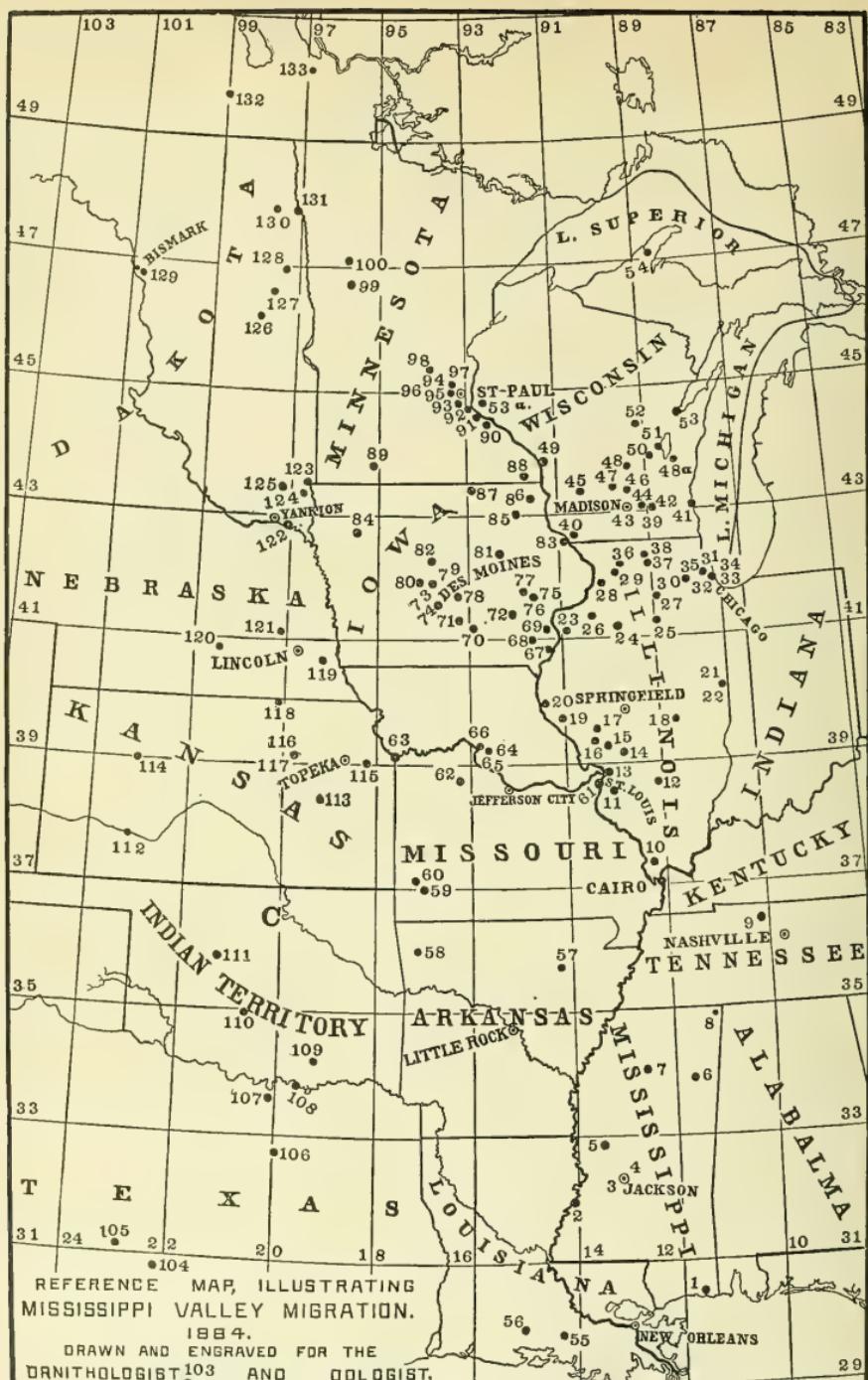
In this number will be found a list of the observers, giving the name, address and latitude in degrees and minutes, and in the left hand column, the number which has been assigned to each. A map of the Mississippi Valley is also given on which the stations are indicated by their numbers. The numbers 29a, 53b and 53c are not given on the map, having been received after it was engraved.

As will be seen by the list, my residence has been changed, and all reports will hereafter be sent to me at Red Rock, Ind. Territory. The extra work necessarily incident to the change has encroached largely on the time set apart for the preparation of the notes for this month's issue.

A glance at the map will show that of our hundred and forty observers, the majority are massed in the four states Illinois, Wisconsin, Minnesota and Iowa. One would be correct in judging from this that these four states contain more amateur ornithologists than all the rest of the Mississippi Valley. Indeed the balance in favor of these states is greater than the list of observers would indicate, since the observers in the crowded states were obtained almost without effort, while those in the other states are the result of an immense amount of persistent entreaty. Appeals for observers were sent to eighty daily and weekly papers in the states of Mississippi, Louisiana and Texas. The return for this expenditure of time and money was *one* new observer.

It will be observed that the numbers progress northward in three lines; from Mississippi to Wisconsin; from Louisiana to Minnesota, and from Texas to Manitoba. These three lines of stations correspond approximately with three great routes of bird migration. In the eastern part of our territory will be found a path of migration extending, in general terms, from about seventy miles east of the Mississippi, to and a little beyond our eastern border. Migration by this route is somewhat irregular, being influenced by the vicinity of mountains as we pass farther north, being much changed as we approach the great lakes. Nearly the whole of Wisconsin seems to belong to this region. The second line of migration may be called that of the Mississippi Bottom Land. But it includes more than the mere bottom land. It extends east of the Mississippi from fifty to seventy miles, and west to the edge of the timber. In Louisiana, Arkansas and Missouri, the belt is rather wide, but in Iowa it rapidly diminishes, and in Northern Iowa is quite narrow, the *avifauna* of the middle plains passing eastward almost to the Mississippi river. In Minnesota the route for many birds, especially the water birds, bends to the west and passes to the valley of the Red River of the north; while that of the smaller *insectivores* is directly north, or even northeast to the heavy timber. The study of the movements of birds around the source of the Mississippi, or rather from Minneapolis, Minn., to Fargo and

[Continued on Page 52.]



Stations 101 and 102 in Southern Texas are not given. 103 is one degree too far south.

LIST OF STATIONS AND OBSERVERS.

No.	Lat.	State.	City.	Name.	No.	Lat.	State.	City.	Name.
1	30.26	Miss.	Moss Point.	C. H. Wood.	66	39.14	Mo.	Glasgow.	T. B. Smith.
2	31.52	"	Rodney.	Gideon Mabbett.	67	40.50	Ia.	Burlington.	Dr. F. Kuitman.
3	32.17	"	Jackson.	A. G. Gale.	68	41	"	Mt. Pleasant.	E. L. Ambler.
4	32.17	"	Jackson.	Geo. C. Eyrich.	69	41.05	"	Morning Sun.	W. A. Lester.
5	32.50	"	Yazoo City.	Judge R. B. Mayes.	70	41.14	"	Ferry.	F. Eveland.
6	33.34	"	Waverly.	Maj. G. V. Young.	71	41.19	"	Knoxville.	G. K. Cherrie.
7	34.08	"	Water Valley.	E. M. Hoke.	72	41.26	"	Richmond.	I. N. Arnold.
8	34.55	"	Corinth.	Dr. Rawlings Young.	73	41.36	"	Des Moines.	U. S. Grant.
9	36.31	Tenn.	Southside.	Dr. T. H. Rye.	74	41.36	"	Des Moines.	C. R. Keyes.
10	37.30	Ill.	Ana.	C. W. Butler.	75	41.38	"	Iowa City.	H. N. Berry.
11	38.35	"	West Belleville.	G. C. Bunsen.	76	41.38	"	Iowa City.	E. F. Vincent.
12	38.39	"	Odin.	W. Ingram.	77	41.40	"	Coralville.	Mrs. V. S. Williams.
13	38.55	"	Alton.	Wm. McAdams.	78	41.42	"	Newton.	J. W. Preston.
14	39.12	"	Hillsborough.	Nat. Hist. & Ant. Soci-	79	42	"	Ames.	Prof. H. Osborn.
				ety, A. W. Harris, Pres.	80	42.03	"	Boone.	Chas. F. Henning.
15	39.19	"	Carlinville.	Chas. W. Robertson.	81	42.18	"	La Porte City.	G. D. Peck.
16	39.27	"	Whitehall.	H. L. Kelly.	82	42.27	"	Webster City.	Chas. Aldrich.
17	39.38	"	Liter.	P. H. Rucker.	83	42.30	"	Dubuque.	E. T. Keim.
18	39.41	"	Sullivan	A. P. Greene.	84	42.37	"	Storm Lake.	H. L. Bond.
19	39.43	"	Griggsville.	T. W. Parker.	85	43	"	Douglas.	Miss J. A. McCleery.
20	39.55	"	Quincy.	W. S. Turner.	86	43.15	"	Waukon.	E. M. Hancock.
21	40.08	"	Danville.	G. C. Pearson.	87	43.19	"	Mitchell.	J. W. Lindley.
22	40.08	"	Danville.	John A. Balmer.	88	43.43	Minn.	Lanesboro.	Dr. J. C. Hvoslef.
23	41.09	"	Aledo.	C. W. Carter.	89	43.48	"	Heron Lake.	Thos. Miller.
24	41.10	"	Osceola.	Dr. E. O. Boardman.	90	44.26	"	Lake City.	G. H. Selover.
25	41.18	"	Grand Ridge.	E. E. Soule.	91	44.32	"	Red Wing.	Dr. J. H. Sandberg.
26	41.28	"	Colona.	Dr. P. R. Sale.	92	44.45	"	Hastings.	Rev. G. B. Pratt.
27	41.34	"	Mendota.	Wm. Jenkins.	93	44.47	"	Fine Bend.	R. Linton.
28	41.36	"	Tampico.	H. M. Griswold.	94	45	"	Minneapolis.	E. S. Stebbins.
29	41.46	"	Coleta.	Joseph Anthony, Jr.	95	45	"	Minneapolis.	H. W. Hamline.
29a	41.47	"	Hennepin.	P. L. Oug.	96	45	"	Minneapolis.	Dr. P. L. Hatch.
30	41.49	"	Batavia.	John Brady.	97	45.05	"	Fridley.	Court W. Ranslow.
31	41.51	"	Chicago.	Frank H. Wentworth.	98	45.25	"	Elk River.	Vernon Bailey.
32	41.51	"	Chicago.	J. G. Parker.	99	46.33	"	Frazee City.	Miss G. M. Lewis.
33	41.51	"	Chicago.	H. K. Coale.	100	47.04	"	White Earth.	Dr. C. P. Allen.
34	41.51	"	Chicago.	J. R. Daley.	101	28.43	Tex.	Eagle Pass.	Walter Negley.
35	41.54	"	Wright's Grove.	John Gall.	102	29.20	"	Del Rio.	Dr. Thos. W. Scott.
36	41.58	"	Polo.	H. A. Kline.	103	30	"	Sisterdale.	F. Grasst.
37	42.05	"	Davis.	F. E. Kleckner.	104	30.43	"	Mason.	I. B. Henry.
38	42.16	"	Rockford.	J. E. Dickenson.	105	31.22	"	San Angela.	Wm. Lloyd.
39	42.37	"	Delavan.	Gilbert Le Bar.	106	32.23	"	Waxahachie.	Dr. S. W. Florer.
40	42.47	"	Wis. Arthur.	Wm. Britten.	107	33.36	"	Gainesville.	G. II. Ragsdale.
41	43	"	Milwaukee.	G. W. F. Smith.	108	33.43	"	Denison.	R. P. Burhaus.
42	43.01	"	Jefferson.	C. J. Porter.	109	34.11	L T.	Caddo.	W. W. Cooke.
43	43.02	"	Madison.	Mrs. H. M. Lewis.	110	34.55	"	Anadarko.	T. J. Dove.
44	43.06	"	Lake Mills.	E. H. Stiles.	111	35.37	"	Darlington.	O. W. Coggeshall.
45	43.19	"	Richland Center.	Dr. W. S. Burnham.	C	36.30	I. T.	Red Rock, Central Station, W. W.	
46	43.20	"	Leeds Center.	J. F. Robinson.				Superintendent.	
47	43.30	"	North Freedom.	Wm. Toole.	112	37.49	Kan.	Cimarron.	W. J. Dixon.
48	43.37	"	Merritt's Landing.	R. E. Mitchell.	113	38.23	"	Emporia.	Frank Kizer.
48a	43.43	"	New Cassel.	John Schrooten.	114	38.55	"	Ellis.	Dr. L. Watson.
49	43.45	"	La Crosse.	H. E. Willis.	115	39	"	Lawrence.	Prof. F. H. Snow.
50	43.47	"	Ripon.	G. T. Cook.	116	39.12	"	Manhattan.	Prof. D. E. Lautz.
51	43.59	"	Oshkosh.	W. E. Ritter.	117	39.12	"	Manhattan.	Dr. C. P. Blachly.
52	44.22	"	Waupaca.	C. F. Carr.	118	39.50	"	Washington.	M. L. Penwell.
53	44.26	"	West Depere.	S. W. Willard.	119	40.47	"	Unadilla.	F. C. Kenyon.
53a	44.45	"	River Falls.	Prof. F. H. King.	120	40.53	Neb.	Alda.	F. W. Vowell.
53b	44.30	"	Green Bay.	J. N. Ward.	121	41.22	"	Linwood.	W. J. Kingsbury.
53c	44.30	"	Green Bay.	John Byrum.	122	42.56	Dak.	Vermillion.	G. S. Agersborg.
54	47.10	Mich.	Hancock.	Rev. F. N. White.	123	43.34	"	Sioux Falls.	Percy Edmison.
55	29.30	"	Baldwin.	C. A. Bibbins.	124	44.15	"	Barton.	S. D. Partch.
56	29.57	Ia.	Abbeville.	W. W. Edwards.	125	44.21	"	Huron.	G. S. Bishop.
57	35.36	Ark.	Newport.	W. A. Monroe.	126	46	"	St. Ansgar.	T. P. Lindley.
58	36.02	"	Fayetteville.	Prof. F. L. Harvey.	127	46.30	"	La Moure.	C. B. Strable.
59	36.56	Mo.	Pierce City.	Prof. H. Nehrling.	128	46.55	"	Argusville.	S. M. Edwards.
60	37.08	"	Reeds.	N. P. Ball.	129	46.58	"	Menoken.	W. T. Tyler.
61	38.40	"	St. Louis.	O. Widmann.	130	47.52	"	Larimore.	T. F. Eastgate.
62	38.43	"	Sedalia.	F. A. Sampson.	131	47.55	"	Grand Forks.	Fred Twamley.
63	39.06	"	Kansas City.	G. E. Stillwell.	132	49.28	Man.	Two Rivers.	Percy Criddell.
64	39.09	"	Fayette.	Prof. J. W. Kilpatrick.	133	49.30	"	Winnipeg.	Manitoba H. & S. Soc'y,
65	39.09	"	Fayette.	M. P. Lientz.				Rev. Geo. Bryce, Pres.	

[Continued from Page 49.]

Grand Forks, Dakota, will undoubtedly reveal many points of interest in regard to the routes preferred by the several species.

West of the two routes already mentioned lies the route of the plains. Our territory hardly reaches to the high, arid plains, such as are found in Eastern Colorado. The western parts of Kansas, Nebraska and Southwestern Dakota have a small sprinkling of mountain birds, and Northwestern Texas a larger proportion, but for the most part the third route consists of fertile plains, timbered only along the streams, and traversed by much the same birds as the other two routes, but in greatly diminished numbers.

Migration starts first in the middle of the three routes. In early spring, the movements of the birds in the eastern route are perceptible later than those of the birds in the bottom land, but as the foliage grows denser this difference disappears, and the waves of migration move up both routes at practically the same time.

On the western route migration is always later than on either of the others. The first movements are from one to three weeks; later, and toward the latter end of the season, the plains are about ten days behind the middle route.

When our record closed last month on March 1st, the first wave of migration had advanced to a little north of lat. 39°. During the next month the progress of migration was very marked; where March 1st, we sought in vain for spring arrivals, a few days later, birds were numerous.

By April 1st, the water birds had moved northward to about the parallel of 46³⁰. Here they were met, even at that late date, by ice and snow. Some of the swiftly flowing streams welcomed them with open water, but all lakes still were covered with ice.

Last year the average speed of the migration of Ducks for a distance of 500

miles was eleven miles a day. Let us see how that speed compares with their rate this spring. After being driven back twice by cold in their attempts to reach their summer home, spring at last began in earnest and brought the Ducks to Newton, Ia., 41⁴⁷, on March 12th. Four days later they appeared at La Porte City, Ia., 42¹⁸, or nine miles a day. March 23d, found the first flocks settling on Heron Lake, Minn., 43⁴⁸, or fifteen miles a day. The morning of March 26th showed them to be at both Red Wing, Minn., 44³², and Fridley, Minn., 45⁰⁵, and the last day of the month brought them to Frazee City, Minn., 46³³; this last 200 miles being made at an average rate of twenty-four miles a day. From Newton to Frazee City, the average is seventeen miles a day.

The observers in Southern Iowa say that their spring was late, while those in Northern Minnesota say the birds came earlier than usual. In the light of these statements it will be seen that the higher average speed was to be expected.

Before the next month rolls round our advance guard will have penetrated the far north, and while their southern cousins retreat from the scorching heat and partake of strawberries and ice cream under the shade of thickly foliated trees, our most northern observers, among the snow drifts and masses of ice, will be hailing the first harbingers of spring.—W. W. Cooke, *Red Rock, Indian Territory.*

The Ruby-throated Hummingbird.

(*Trochilus colubris.*)

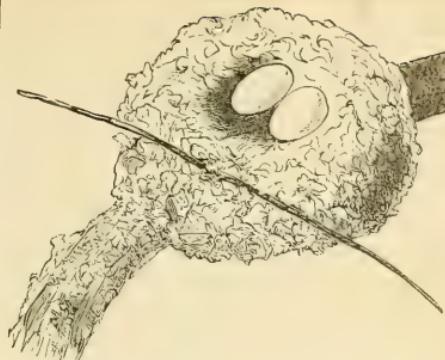
What was to me one of the luckiest finds I made last year was the nest and eggs of the Hummingbird.

I had been collecting in an orchard and thought I had ransacked it pretty thoroughly. While working my way out, a Hummingbird darted past, inducing me to follow in the direction it had gone. I had not proceeded far when I saw the bird

dart from a limb and after a few moments re-appear and alight on the same limb. This convinced me that there was a nest somewhere in the vicinity. Dodging carefully from tree to tree, I cautiously approached the bird and had succeeded in getting quite near, when suddenly catching sight of me, he darted away. Hastily getting as near the limb as I thought prudent, I awaited his return. In company with his mate he was soon back. By the frantic way in which they darted around my head, I was convinced that their treasure was within a few feet of me. Turning my head, I beheld the prize—so near that a step to the right would have knocked the eggs from the nest. There were two pearly white eggs, my delight in discovering which may be more easily imagined than described. When I had recovered my equanimity, I retired a short distance and sat down to watch the habits of the birds, as this was the first nest of the species I had ever found.

They soon thought I had gone, and the female returned to the task of incubation. She would fly along until directly over the nest and about an inch above it, when suddenly closing her wings, she would drop into it and settle herself in position. The male meanwhile kept watch on an adjoining limb. I frightened the female off her nest several times for the purpose of watching this manœuvre, which was repeated each time. Finally concluding that I had learned all that I could, I started forward to take the nest, when I was assailed on both sides by the infuriated mites, who darted past my face so close that I began to be afraid of my eyes. They kept chirping loudly all the time, which I see is denied by some writers, who, had they been present, would never have denied it again.

The nest was built near the extremity of an apple bough, and was not more than five feet from the ground. To describe the nest, I cannot do better than quote



Nest of Ruby-throated Hummingbird (full size, from nature.) from my note-book. "The nest is an exceedingly small structure, being not more than three to three and one-half inches in circumference, one inch in diameter, and half an inch deep—inside measurements—and an inch and a half high. It is composed of thistledown, willowdown, cobwebs and caterpillar's silk. It is plastered all over the outside with lichens. The lining is of the materials named. One peculiarity of this nest is that a pine needle of extra length is just caught on to the side by a few turns of cobwebs as if for ornament, and projects from each side about two inches."—E. M. Hasbrouk, Syracuse, N. Y.

Notes from Smithville, Georgia.

This village is situated in southwest Georgia, just below the thirty-second parallel, and to the ornithologist, whether professional or amateur, the surrounding country affords an interesting field for observation and study.

At this date (January) great flocks of Blackbirds may be seen every morning flying from northeast to southwest, and about 4 or 5 o'clock in the afternoon returning on their passage to roost.

Their flight is about 100 feet above the earth and is rapid and vigorous. In these daily journeys they move with striking order and precision, and at no time is this more noticeable than when pursued by a

Hawk. The poor birds, at such times, seeing their terrible enemy coming with wings half closed and swift almost as an arrow from a new-made bow, are frightened beyond describing and put forth all the power of wing they possess to escape, if possible, the fatal stroke. They dash to the right, to the left, sweep to the ground, then rise as swiftly high in air, again to move onward with the rush and roar of a furious wind, but all the while keeping their ranks solid and unbroken, until the Hawk actually shoots himself into the flock and seizes his single victim. And in this connection I will state I have often observed that one Hawk could strike more terror and dismay into a flock of birds, than half a dozen men with as many shotguns could in the same length of time.

These birds feed now wherever they find their food most abundant, whether in swamp or on hill. During the early part of this month they can be found frequenting the fresh-sown oat fields, picking up the stray grains from off the surface.

Our vast pine forests are generally swept by them in November and December and scarcely a seed of the pine is visible when they have left for other feeding grounds.

The Robin will claim attention next. He still confines himself to the swamp and wood, where wild berries, etc., are yet abundant enough to satisfy his demands, and where he is comparatively safe from molestation by man with his destructive breech-loader. But in the course of a few weeks more, having consumed his forest supplies, Redbreast will be compelled to seek his food around the house and garden, where he will meet with death at the hand of every boy strong enough to shoulder a parlor rifle and wanton enough to touch the trigger; for he is a bird of decided stupidity and the muzzle of the sportsman's piece may be easily placed within a few feet of him before firing.

Here, Robins are nearly as numerous as the Blackbirds, of which we have spoken. When they have exhausted everything else, they visit the China tree (found in all the cities and towns in this latitude,) and feed upon the berries which it bears in superabundance. At these periods the children often catch them on the ground, where they have fallen, intoxicated by the berry aforementioned. Late one afternoon last spring, I picked up a Robin thus intoxicated that had dropped from a tree near by and was fluttering along in a limp and helpless manner. Having carried the bird home, I put it in a box for the night and next morning turned it loose, when it flew away as easily and soberly as any of its fellows could have done.

It is not, however, the scope and purpose of this article to go minutely into the nature of the Robin; and as I have mentioned the most conspicuous of his winter habits, I will now dismiss him.—*W. B. H., Smithville, Ga.*

Bird Notes of the Northwest Region.

PART II.

GREAT-HORNED OWL, (*Bubo virginianus.*) Rather an abundant bird and breeds plentifully. I found nests at Ft. Laramie in '82, and it is not rare in any part of the territory where there are timbered streams. Feb. 22, ('84,) saw one specimen but did not take it as I hope to find its mate and nest in the vicinity... All my nests of this bird found in Wyoming have been placed in the crotch of a tree, generally at top of trunk, never on branches. I found one in Nebraska ('83) in a hollow tree. These nests were built by the Bubo itself, but where they are built on branches they are invariably old Crow's or Hawk's nests. The nest is not much of an affair, being rude and bulky. I found one nest at Fort Laramie, Wyo., ('82) which was by far the best specimen I ever saw. It was com-

posed of thick, heavy sticks and lined inside with finer ones and a few feathers. Whether these feather were put there purposely or not, has always been a question with me—at any rate this nest did credit to the bird that built it. It was clean, no carrion nor decayed flesh of any kind being about it. As a general thing these birds are very filthy about their nest even before the eggs are hatched, after which their nests will turn a man's stomach. One nest found near the above contained six eggs, fresh, and was the filthiest I ever saw; the decayed parts of rabbits, moles, etc., lying in and on the edges of the nest was something astonishing. These birds had not even built a nest of their own, but took an old Crow's nest, which was nearly filled with old leaves and pine needles. The hollow part was hardly sufficient to hold the eggs in the nest. I shot both birds. After going through my hands I suppose they are much cleaner birds than when breeding on the banks of the North Platte river. There is a tame specimen here, owned by a man in Troop "I" of the 5th U. S. Cavalry. It is kept in the grain room of the stable. It is quite an interesting sight to watch. It will sit all day and night on top of the grain sacks and watch for mice. There being plenty of them the bird gets enough to eat. For catching mice this bird is as good, if not better, than a cat. I never have known this one to miss his prey after sighting it. As regards courage, the Great-horned Owl stands at the head of all the Owls, and I have great respect for him on this account—chiefly because I shall always carry a scar given me by one of these birds while taking a nest of their eggs two years ago. It is next to the Great Grey Owl (*Syrnium lapponicum var. cinereum*), in size, and is distinguished by its size and large ear-tufts. In color it is blackish, with dark and light brown, but as it varies so much in color no regular description can be given; the general mark is a white collar. Eggs pure

white, spherical (nearly) $2.11\text{--}16 \times 1.15\text{--}16$. Length of bird about two feet, generally a little less; feet completely feathered; wing 15 or 16 inches; tail 9 or 10 inches.

Falco sacer, var. gyrfalco. Quite an excitement was recently created here by the report that an Eagle had been captured alive and brought to the military post by a man living on Goose Creek, some forty miles from here. As nobody seemed to be able to tell what it really was, and thinking it was too small for an Eagle, they dubbed it Rock Eagle. I visited the place where it was confined, a stable, and found it was a Gyrfalcon (*Falco sacer*,) which had probably come this far south because of the severe winter. As the specimen is alive I could not take measurements, but judging as near as possible, find as follows: A little over two feet long, wing about 15 or 16 inches, tail 8 or 9, rather more than less; tarsus feathered half way down front, bare strip behind, (in all probability this is variation *Gyrfalco*;) bill and claws dark, crown darker than back, and heavy moustaches. I tried to buy this specimen but the owner would not sell. However, I have not given up all hopes of getting it yet. It sits under a carriage without being fastened and is fed on raw beef, holding the meat by one claw and tearing off small pieces. Although not an Eagle, it is a much rarer bird for this region. I do not know of any having been taken as far south as this.—*Chas. F. Morrison, Ft. McKinney, Wyoming.*

[Comparing our correspondent's description of this "*Gyrfalcon*" with that in the authorities, leaves us in some degree of doubt as to the precise variety of the specimen found. In *Fauna Boreali Americana*, *Falco sacer* is said to be the "*immature Gyrfalcon*," and the *Gyrfalcon*, *Falco Islandicus*, (Latham.) In the illustration in "*Animal Kingdom*," the American Gyrfalcon, *F. Greenlandicus*, has the tarsus covered by hock feathers. Perhaps some of our correspondents who have undoubtedly specimens of each variety of Gyrfalcon will be able to throw light upon the subject. Comparing Check Lists, etc., on this matter has brought forcibly before us the necessity for a uniform and authoritative system of nomenclature. "From our correspondent's description we suppose he identifies the bird as a specimen of *Hierofalco gyrfalco sacer*, (Forst.)—412b. of last Smithsonian Check List."—EDITOR.]

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Migration Observations in Austro-Hungary.

Accompanying the First Yearly Report of the Committee for Ornithological Observation Stations in Austria and Hungary, we have received an interesting letter from Herr V. Ritter von Tschusi zu Schmidhoffen. He says: - "Probably you are already aware that an Ornithological Congress is to be held in April at Vienna, under the protectorate of His Imperial Highness, the Crown-prince Rudolf. Representatives from all parts of Europe have already announced their intention of being present, and the meetings promise to be very interesting.

Included in the programme is a discussion of the greatest possible expansion of the systematic Observation Stations, also, the working up of the material coming in after *one* plan. If this latter could be accomplished, it would much increase the value of the results. Such, as you can convince yourself by an inspection of our report, is the way we are proceeding with our branch of the work. We arrange the material received in this form, expecting that after a number of years the reports thus accumulated, may be worked up together and used scientifically. Conclusions founded on a single year's observa-

tions are unreliable and of no service to real knowledge. Correct conclusions can only be arrived at from the observations of many years. I therefore think our way of working is to be recommended, as thus each observer can himself verify his own results by those of others, as well as by his own as they accumulate from year to year. When time permits, I will report upon our Congress and Exhibition."

We shall hope to receive and publish the promised Report of the Congress. It was opened on the 7th of April by the Archduke Rudolf and, to judge from the telegraphic announcement, excited much interest. An ornithological exhibition at which all known birds were represented, together with their manner of living, gave an additional interest to the proceedings of the Congress.

We are quite unable within the space at our command to do justice to the report referred to. It has not been got together hastily—being for the year 1882—and exhibits the thoroughness characteristic of the German scientist.

Besides the general report from each district, a "Year's History" of each of the birds concerning which observations were received, is given. This occupies the greater part of the volume, and contains many details in regard to the more common varieties. Altogether 347 species are mentioned, summed up in their various orders—Rapaces, Cantores, &c.—the material received regarding each order having been edited by members of the committee and others accustomed to such work.

We can congratulate our Austro-Hungarian co-laborers upon the completeness and value of their first "Year Book." It cannot fail to be an assistance to the American Committee on Migration in the working up of the reports they will receive.

For the second volume—1883—it is announced that reports have been received from 378 observers.

Gastro-ooological.

April 5th, I took a set of fresh Barred Owl's eggs, and ate them! Well, why not? Are not eggs eaten by birds, reptiles, quadrupeds, and the quadrumanæ? Yes; but Owl's eggs! Ah, well, your *Gallus domesticus* eats swill and every description of barnyard filth, while my Owl lives largely on the daintiest of game. In its nests I have seen Quail, Grey Squirrels, Ruffed Grouse and Rabbits; indeed, in this section, my experience shows that both the Great-horned and Barred Owl keep their young well supplied with the common American Hare. Mr. Sam. Wolcott, who has a cattle range in south Texas, informs me that both his cow boys and himself—Greaser and Yank—freely eat the eggs of the Teccalotl or Barred Owl, which breeds abundantly there in February and March. For choice, the Mexicans would not accept the products of your fancy poultry-yards. Capt. Daboll, with a fishing crew from Noank, kept by fog over night on Gardiner's Island, made an omelet of Fish Hawk's eggs and—contra Wilson—found it a good addition to their menu. Mr. Curtis, of the Poland Springs House, has eaten Hawks' eggs in California under like conditions. For many years I have been in the habit of refreshing myself in the field, after a long tramp, by blowing sets of eggs and swallowing the contents. Barbarous, you say. Well, try a little savagery yourself. It will agree with you. If you have no hand-blower, it is easier and quicker to draw the contents of large eggs with the mouth than to labor with the old-fashioned blow-pipe. On trial, it was shown that I could empty and rinse six Fish Hawk's eggs while a friend prepared three with his Ellsworth blower. In fine, then, it is well to bear in mind that however thin in flesh your land birds, and however fishy your sea fowl, the eggs will uniformly be found to be edible.

My Easter eggs came promptly to hand in the shape of two fine sets of Red-tailed Hawk. Why will new writers follow old authorities and insist that the typical clutch of *B. borealis* is three? (See Stearns' N. E. Bird Life, part 2, page 123, "generally three in number.") I always make a bet with my climber, before he reaches the nest, that the set will be two, and win nine times out of ten.

The red squirrel is well recognized, in the field, as a pest to egg collectors, but this season a pair entered the attic where Chas. Richards keeps his collection and devoured blown sets of Yellow-headed Blackbird and Purple Grackle. Seven sets of White-bellied Swallows, which I took from stubs in Pachaug Pond and left in a farmer's shed, were eaten by rats. St. Patrick's Day I had a Woodcock for dinner, killed by the telephone wires in Thamesville. One week later, a large male, with lower mandible broken, was picked up under the wires on the Colchester turn-pike, which stretch of line has proved destructive in former years. As the telephonic 'plant' increases, the cordon of danger is drawn tighter around our *Philocela*. The injury is usually to the bill, the base of the bill, and head. The cranium can be seen to be enormous, but it is not every epicure that knows what a large and delicious morsel is a broiled Woodcock's brain served in cream.

How many O. and O. readers to-day can say what is the first bird to arrive in Conn.? Now, here you are puzzled at the very A. B. C. of local ornithology. Not the Bluebird which winters with us in constantly increasing numbers. Not the Robin which can be found on occasion all winter. Is it not, then, our friend the Woodcock which is always the last to leave us, wholly disappearing in the hard mid-winter frosts, and is here again before the earliest spring-hole is more than half open and when the watercresses begin to show signs of vitality. This season, during the foggy days in the middle of Feb., skunk-hunters reported the

arrival of many Woodcock in most parts of New London county. The Purple Grackle is the only other claimant to first place and is usually a good second on the list of arrivals. Feb. 22nd, dusky scouting parties were seen at the city reservoir, Norwich, and in the village of Killingly, Windham county.—*J. M. W., Norwich, Conn.*

Notes from Warwick Neck, R. I.

THE BLACK-AND WHITE CREEPER, (*Mniotilla varia*.) In the summer of '82 I was so fortunate as to find a nest containing five eggs and two Cowbirds, and afterwards caught the bird itself. They are quite common in the dense woods, running over the trees in search of food.

WHITE-EYED VIREO, (*Vireo nevadensis*.) Very common. I have taken over a dozen nests in the last two years. They build a beautiful nest, and I have observed they most always choose a sweet-smelling tree or young oak. The complete set of eggs is four.

PURPLE FINCH, (*Carpodacus purpureus*.) Also very common. The largest set of eggs I have taken was six. They have a decided preference for pear trees, and can be seen at almost any time in the day pouring forth their gay songs. The nest and eggs are the same as the familiar Chippy, on a larger scale.

BLACK-BILLED CUCKOO, (*Coccyzus erythrophthalmus*.) Quite rare. Its companion, the "Yellow-billed," has never been observed here, while this Cuckoo may be seen (or rather heard, as he is very shy and not easy to approach,) in the woods or among the dense pine tracts. The nest is simply a few sticks, made like that of the Mourning Dove, and through which you can easily discern the eggs.

FISH HAWK, (*Pandion haliaetus carolinensis*.) Abundant during the fishing season. The nest of this bird resembles more an Eagle's abode, as it is a huge, bulky affair, made of earth, limbs, sea-

weed, etc. The eggs, usually three, are sometimes very beautiful; a dark brown or chocolate on a buff ground.

SPOTTED SANDPIPER, (*Tringoides macularius*.) Everywhere abundant. It is the only species, except the Killdeer, which nests in great numbers along these shores. The eggs are not easy to find, resembling the earth on which they are laid, and the bird must first be flushed to surely find the spot. April 19th—I obtained a set of six Crow's eggs, on 12th, and yesterday, a set of five, far advanced in incubation. Is not this quite early? No Bluebird's eggs, or even nests, yet.—*H. A. Talbot, Jackson Bank, Providence, R. I.*

THE GOLDEN EAGLE (*Aquila chrysaetus*.) San Benito Valley, situated at the southern extremity of Santa Clara Valley, seems to be a favored spot for Golden Eagles. It is no uncommon occurrence to see eight or ten at one time. Their nests are also frequently found, while it seems impossible to force the birds to leave the locality. Last year I took a set of eggs from one nest and killed the old bird (female, measuring 83 inches.) This year the male had found a new mate and I was favored with a new set. The eggs measure 2.95×2.20 and 2.90×2.24 . The nest was composed of branches, some of which measure two and one-half inches in diameter. The lining was of oat straw. Nest measured sixty inches, outside measurement. The bird remained on the nest until I was almost up to it. Date, March 16, 1884. Another set was taken the next day and was obtained within three miles from town. The nest was somewhat smaller than the first; lining the same. The eggs are almost pure white and measure 2.80×2.15 and 2.86×2.20 . I would like to hear from some one about the statement that Eagles lay their eggs at intervals of two or three weeks. My experience has not been so with them.—*Will Steinbeck, Hollister, Cal.*

THE LARK FINCH (*Chondestes grammica*, Bonap.) A very common species on the West Yegua is the Lark Finch, and I observed it to be in this neighborhood even more numerous than the Song Sparrow in Wisconsin and Northern Illinois. It seems to me that these birds are for this locality in every respect the representatives of the familiar Song Sparrow of the Northern States. Near houses, in gardens and fields, on the edges of woods, in thickets, on the prairies and along rail fences and other similar situations this is an abundant bird. It arrives from the South early in April and departs in large numbers for its winter quarters in the last part of September. Nestbuilding takes place from the beginning of May and continues to the middle and latter part of June. Two broods are raised every year. The nest is built on trees, in the corners of rail fences, on the ground and sometimes in bushes. One nest I found in the cavity of an old tree. The Lark Finch, like *Melospiza meloda*, Baird, prefers to nest in close proximity to human dwellings and especially they like to construct their nests on a horizontal branch of a mulberry tree. The nests I found on trees and in the corners of fences were built exteriorly of the sticks of the downy *Gossypianthus tomentosus*, some other plant stems and dry grasses, and are lined with horsehairs. All these nests have the appearance of Song Sparrow nests. The nests built on the ground are very different from those just described. They are built in a slight depression of the ground from grasses and a few slender weed-stalks, and are lined with fine rootlets and a few horsehairs. If the nest is on the ground, cotton or cornfields are commonly chosen for the site of the same. The latter nests have very thin walls, whilst those in trees, etc., are very strong and bulky. The eggs, usually five in number, have a beautiful crystalline white ground color and are curiously streaked with zigzag lines

and some blotches and spots of dark brown on the larger end. Some spots are to be found on the entire egg. These heavy brown markings are easily to be rubbed off with water, so that only a light reddish-brown color remains. The song of this bird is varied, continuous and very sweet, yet not clear and thoroughly fine as the shorter song of the Song Sparrow or the very sweet song of the White-throated Sparrow (*Zonotrichia albicollis*, Bonap.) and the Fox-colored Sparrow (*Passerella iliaca*).—H. Nehrling, Fedor, Lee Co., Texas.

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE, (INCLUSIVE,) 1883.

PART III.

APRIL 5. Among the new comers I can add to-day the Chipping Sparrow, (*Spizella socialis*), and the Pewit Flycatcher, or Phoebe-bird, (*Sayornis fuscus*), also the Ruby-crowned Kinglet, (*Regulus calendula*). Observed two or three of the last busily gleaning among the branches of a Maple tree at the road side in the neighborhood of the Spruce.

APRIL 9. Gave an hour this morning to the birds with the following gratifying results: Among the new arrivals saw several small parties of Cow-blackbirds, (*Molothrus pecoris*), each consisting of two or three females and one male. It has often occurred to me there is a singular and striking resemblance between certain habits of this bird and our domestic poultry in this—there is no pairing among them, they live during the breeding season in small parties or flocks, a sort of "promiscuous concubinage" manifestly pervading the whole tribe; and certainly again they are not unlike many of our breeds of poultry in their remarkable habit of depositing their eggs in ready-made nests, but never incubating or rearing their own young. I have also observed the male bird strut and spread his wing and assume bewitching attitudes in the presence of the females—counterparting the very manners of the Bantam Cock. Saw also several pairs of Towhee Buntings, or Chewinks, (*Pipilo erythrophthalmus*), invariably about thickets or briar patches. While observing these birds one of them mounted to the top of a small tree, and for about five minutes, at short intervals, uttered a series of not unmusical notes resembling the syllables pét-ér, che-che-che. These birds may at once be recognized by their cry of tō-wéé frequently uttered, especially when disturbed. The following features will identify them "in the bush": The head, throat and back are black, the sides below the wing, bay; there is a touch or two of white on either wing, also on the outer edge of the tail; in flying the white feathers are especially prominent. Audubon remarks that in the spring migration the male precedes the female two weeks in point of time, but both seem to have appeared here simultaneously, and both a little earlier than he announces for the males.

While seated on a log, a company of nine or ten Golden-crested Kinglets, (*Regulus satrapa*), made their appearance—flying among the branches of the trees all around me,

some coming so close as to enable me plainly to distinguish the markings of the head, even the "central bed of flame color." These dainty little birds are but transient visitors on their way to the breeding grounds of the North.

Saw also several individuals of the Red-headed Wood-pecker, (*Melanerpes erythrocephalus*.) This, in other years, has been a common Winter resident here, but this past Winter was exceedingly rare.

APRIL 10. The first appearance of the Purple Martins, (*Progne purpurea*)—about a week behind their usual date of arrival. The Robins are nesting.

APRIL 12. A new spring arrival is the Brown Thrush or Thrasher, (*Turdus philomelos rufus*); the first one to come under my observation alighted on a Plum tree in my yard this evening. If one has an acquaintance with but a dozen of "our own birds," his list ought to include this accomplished songster. It is a bird of marked individuality, that once known, can be identified at sight. Its distinguishing characters are its large size—being the largest of the Thrushes; its rich brown or rust-red dress, its spotted breast, and very long brown tail. A closer view will reveal two bars of dull white across the wing. This bird is frequently seen about briar and bramble bushes, along fences, but is wont to mount to the top of a tree when he sings.

APRIL 13. Saw a pair of Green Herons, (*Ardea virescens*) coursing along one of our small streams. The universally written and familiar book name of this bird in a hundred years has not supplanted the vulgar traditional name which it to-day receives from the Atlantic to the Mississippi.

APRIL 14. The Catbirds, (*Mimus carolinensis*,) are here. The Snowbirds have not all left us yet. A small flock alighted in my lot to-day.

An interesting early spring concert this evening was one in which the Robin, the Catbird and Brown Thrasher were the principal performers, to which we were treated by going no farther than the kitchen yard.

APRIL 18. It was my privilege this morning to hear the song of the Ruby-crowned Kinglet, (*Regulus calendula*), which Wilson seems never to have recognized and entirely passes over. It is a sweet little melody warbled out at odd intervals, and consists of about a dozen notes very rapidly uttered, and bearing a remarkable resemblance to the song of the Warbling Vireo, or the Orchard Oriole, in miniature. These birds are unusually abundant in this locality this spring. Discovered a Turtle-dove's nest on the top of a decayed stump but two feet high, which stood out in the open field, on a steep slope. The nest consisted of no other material than a few blades of dried grass within a slight concavity, and contained two white eggs—the full complement—in an advanced stage of incubation. Recognized the Bay-winged Bunting, (*Pooecetes gramineus*.) This belongs to the Sparrow family; is a fine songster, and its habit of singing in the evening has suggested the name of "Vesper-bird" which some are pleased to give it. The chestnut patch on the shoulder of the wing, and the white lateral tail feathers, will separate this species from its kind. A moderately close view will reveal the former, and the bird's flight will always expose the latter.

The song of the Whip-poor-will, (*Antrostomus vociferus*), is heard in the land.

APRIL 19. The Sumner Yellowbird, (*Dendroica aestiva*), is here among the branches of the apple tree singing his monotonous s-e-s-e-s-e-s-i-w-e-t. This is by some confounded with our American Goldfinch, which, however, it but little resembles. The former's uniformly yellowish dress, longer bill and more direct flight, and the latter's short thick bill, black crown, wing and tail (of the male) and undulating flight, ought to separate them in the eyes of the most inexperienced.

APRIL 26. From the 4th to the 21st of this month the weather was uniformly mild and spring-like; on the 22d—day and night—rain fell without cessation, changing to snow on the 23d, falling to the depth of three or four inches; froze on that and the two succeeding nights, snow not all disappearing until this morning.

Three Robins' nests were completed within the bounds of my yards and apple orchard, with one, two and four eggs respectively in each; also a Dove's nest. For thirty or forty hours these nests were covered with several inches of snow. Only one—the Robin's nest with four eggs has since been re-occupied by the owner; all the others are wholly abandoned. To-day I examined the above mentioned Dove's nest. This was located in an apple tree, about fifteen feet from the ground, and was founded on a last year's Robin's nest, consisting of a few additional loose twigs and dried grasses, forming a nearly level bed, and held two eggs. Breaking these revealed two dead embryos apparently fully incubated.

APRIL 27. With the aid of a boy's "pocket catapult" and a few heavy shot, secured for my cabinet a fine specimen—a male—of the Ruby-crowned Kinglet, which was gleaning among the branches of the apple tree in my orchard in company with one or two others. It had but a moment before warbled out the sweet little song peculiar to this bird, which I described a few days since, but one in which, ornithologists tell us, it rarely indulges this side of its northern breeding grounds. The Kinglets may readily be recognized by their small size, being but little larger than Hummingbirds. Between the Gold-crest and Ruby-crown the former may be distinguished by the markings of the head, the crown being a golden yellow with a narrow bordering of deep black; the bed of yellow being opened a little exposes a bright flame color. The under parts are lighter than in the Ruby-crown. The ruby of the latter is only seen when the feathers are parted.

"The Swallows have come." Observed a pair of Barn Swallows, (*Hirundo erythrogaster*) fly into my stable this evening.

A single Snowbird appeared in my orchard to-day. An unusually late occurrence for this bird in this locality.

MAY 1. My observations this morning were made with the aid of a shot gun. This is the one disagreeable feature in the pursuit of the science of ornithology—the occasional necessity of taking life at once so innocent, so happy and so beautiful. One dead bird, however, of any one species, as a rule, ought to suffice the amateur for a merely critical examination. In respect of the Warbler family the birds are themselves so small, and frequenting, as they do, during their short stay with us, the higher branches of our forest trees, the mere discrimination of species becomes impossible without a resort to the gun, and is, therefore, no less necessary to perfect local lists than to complete cabinet collections. Resident birds, even the smallest, will admit of a sufficiently close approach during the breeding season as to render identification possible without taking life.

Secured four interesting specimens, viz., the Hermit Thrush, (*Turdus pallasi*), the Blue-gray Gnatcatcher, (*Polioptila cerulea*), the Yellow-rumped Warbler, (*Dendroica coronata*), and the Yellow-throated Vireo, (*Vireo flavifrons*), all within the bounds of one small tract of broken woodland, the first two in a watered ravine, the others on the summit of the hill.

There is one group or sub-genus of the Thrush family that is quite puzzling to inexperienced observers because of the remarkable likeness existing between the different species. This group embraces the Thrush named above, the Wood Thrush, the Olive-backed Thrush and Wilson's Thrush or Veery. The following are the most important

specific characters: In the Wood Thrush the head and upper parts are a bright rufus or reddish-brown and the rump and tail are oliveaceous. In the Hermit the reverse obtains—the head and upper parts being oliveaceous and the tail coverts and tail a reddish-brown. In the other two species there are no contrasting colors—in the Olive-back the whole upper parts being oliveaceous, and in Wilson's reddish-brown. Other discriminating marks are thus noted by Burroughs: "The Wood Thrush has very clear, distinct oval spots on a white ground and very generally dispersed; in the Hermit the spots are more circumscribed and on a ground of yellowish-white. In Wilson's Thrush or Veery the spots are still fewer and smaller, and at a little distance the breast presents the appearance of a uniform dull white." Of the above the Wood Thrush is the only Summer resident here. The others go farther north to breed.

The Blue-gray Gnatcatcher is, in body, even smaller than the Kinglets but has a longer tail; but for the last feature it would rank next to the Humming-bird in diminutiveness. Its blue-gray dress and long, black tail will sufficiently identify it. The one I shot (which was a male, being marked by a black line across the forehead,) was evidently nest-building, having a bit of wild cotton in its mouth when taking it up.

The Yellow-rumped Warbler is but a passenger through this State to the more northern districts where it breeds. This is a beautiful bird, and one so peculiarly marked that a reasonably close view could not fail of recognition. The upper parts are bluish-ash, or slate color, streaked with black, and the crown, sides of breast and rump are marked with rich yellow. There is a Western representative of this species known as Audubon's Warbler that mainly differs from it in having a (fifth) patch of yellow on the throat, where in this species it is white.

The Yellow-throated Vireo I shot out of the highest branches of one of the tallest trees. This is no mean songster. The one I secured repeatedly, as I observed it, warbled out some very loud but very sweet notes, which I represented on a slip of paper at the time as follows:

See	éé
lú	
	só
éé	
só	lú,

and then reversed:

só	lú,
éé	
see	

and so on with other interesting modulations. The Vireos are an interesting family of small birds, both on account of their beautiful pensile nests, and their rich and varied song. The other leading species are the Red-eyed, the White-eyed and the Warbling Vireos. The one now before me is much the handsomest, with its rich yellow throat and breast. Olive-green is the prevailing color above in all of the family, hence the name of "Greenlets" which is sometimes given them.

Brief Notes.

A RARE BIRD.—While collecting in Williamsport, Md., the past winter, I was fortunate enough to secure a fine partial Albino Cedar Bird. A description of the bird may be of interest to some of the readers of the O. and O. Back, white streaked with blackish brown; head and breast, a mixture of reddish brown and white; throat, white; breast, light reddish brown, running into yellow on the abdomen; wings, white with a blackish bar running diagonally across and having the wax tips; tail, white with the usual yellow tips; feet and bill, several shades lighter than those of a normally colored specimen. These colors and mixtures combined to form one of the most beautiful birds

that I ever had the pleasure to look upon.—J. F. Whiting, Dorchester, Mass.

THE SCREECH OWL.—Noticing the item in April O. and O. by R. J. Tozer, "Woodpecker and Owl" and his query: "Do Screech Owls often attack a bird as large as the Red-headed Woodpecker?" reminds me of a little circumstance occurring to one of my neighbors—he is a reliable and very observing man, especially of birds. He found one of his hens under the roosting place one morning dead, killed by a mink he thought, but was unable to make any discoveries pointing to the detection of the predator. The following night, just at dusk, his attention was attracted by a great commotion among his fowls in the roost. Hastening there he found one of the hens on the floor apparently in a death struggle. He perceived something attached to her neck which he supposed to be a weasel, the light being too indistinct to distinguish. In desperation he seized the thing in his hands and found it to be a small Screech Owl with its claws firmly fixed in the neck of the hen just back of the head, so firmly that he had considerable difficulty in disengaging them. In a moment the owl lay beside the dead hen, and the contrast was so remarkable that scales were brought into requisition and weights determined. The hen was a great fat five pounder—but the owl was a poor little attenuated starveling and only weighed four ounces.

If any one imagines a Screech Owl destitute of muscle let him try a "grip" with one—I think once will suffice for the most skeptical—I have had experience. I once observed a Golden-winged Woodpecker making an excavation in a decayed oak near me—watched its completion—assisted the entrance a little with my knife and secured the eggs. Passing the spot the succeeding spring I put my hand in the nest, and finding a lot of feathers, I was about to remove them when something with points like a needle and power like a vice closed on one of my fingers, the two points seemed to go from opposite sides of that finger till they met in the middle with a power and rapidity too great to describe. I let go of that fellow quicker than he was willing to let go of me, and haven't cared to try another grip with an owl since.—J. N. Clark, Old Saybrook, Conn.

In answer to the query by R. J. Tozer in April O. and O. would say that I have repeatedly found portions of Flickers in the holes frequented by Screech Owls and presumed it to be their work. Is it not for this reason that the Pigeon Woodpecker often chooses a tree that has two holes leading into the cavity? I have more than once discovered a Flicker in a hole and had him escape by going out through another. A Screech Owl once ate the heads off three Quails (dead ones) devouring all, even to the bills, which I found by dissection. I also found the remains of a Jay in a cavity in a tree. The Screech Owl is a powerful little owl and doubtless can make it uncomfortable for larger birds than Flickers and Red-heads.—F. T. Jencks.

NOTES FROM TAFTSVILLE, VT.—April 16th found me in the woods for one half hour. Seated upon a stump to watch the Blue Snowbirds, (*Junco hyemalis*), which were very numerous. I heard what at first I mistook for the song of the Ruby-crowned Kinglet, (*Regulus calendula*), but soon the little songster came within ten feet of me, when with much pleasure I saw it was the Golden-crowned Kinglet, (*Regulus satrapa*), this being the first time I have positively identified its song, which, though lacking the power, resembles the beautiful song of the Ruby-crowned. A flock of about thirty White-winged Crossbills, (*Loxia leucoptera*), settled upon the ground near me, but were soon startled by the drumming of a Ruffed Grouse. A Brown Creeper, (*Certhia familiaris rufa*), was eagerly searching the trunk of a large tree near me, Pine and American Goldfinches, (*Chrysomitis pinus*, and *Astragalinus tristis*)—the latter

species still in winter plumage—were, as they have been for many weeks, very abundant. Chickadees, Robins, Song and Tree Sparrows, Hairy and Downy Woodpeckers, were among the lively throng. Crows were lazily passing high overhead, while at frequent intervals the loud notes of a Pileated Woodpecker, (*Hylotomus pileatus*), although uttered nearly one half mile away, were distinctly heard.—C. O. T.

THE EVENING GROSBEAK, (*II. vespertina*), seems to be a regular winter visitor here, but it is not plentiful. Last winter I saw one and this winter I took three from a flock of five. Jan. 22, I was standing in a door-yard in which there was a Boxelder tree full of seeds, when I heard a queer chirping overhead, and looking up saw five birds coming down in circles, all the while uttering their queer note. Alighting on the Boxelder tree they began to pick and shell the seeds. As two males came in range I killed them both. At the report of the gun the others flew off a little way and then came back to the same tree, when I killed a female, then the others left. What I took were fine specimens and beauties, with their great beaks and combination of colors. Their food here seems to be entirely the seed of the Boxelder. I never dissected one that contained anything else.—Vernon Bailey, Elk River, Minn.

NOTE FROM GRAND RAPIDS, MICH.—We have had an exceptionally pleasant spring and now the woods are alive with birds, all the Sparrows, Pewees, Blackbirds and Chipping birds contributing to make as much noise as possible. I have seen but one Warbler, of what species I could not tell. I saw the first Robins March 18, Meadow Larks March 20, Phoebe March 25, Blackbird March 21.—Rob. H. Wolcott.

TAMENESS OF THE GOLDEN-CRESTED KINGLET, (*Regulus satrapa*). During the last days of September, while passing through the straits of Mackinaw, on a steamboat on my annual collecting trip to the upper peninsula of Michigan, I was struck with the utter disregard manifested by the Golden-crested Kinglet for the presence of man. One morning we found our boat invaded by eight or ten of these birds. It was not long before they found their way into the cabin, attracted there by the large number of flies, and at dinner time they caused no little amusement and some annoyance by perching on the heads of the passengers and on the various dishes which covered the table. I caught flies, which they would readily take from my hand with a quick flutter. I caught several, and even when in my hand, they manifested no fear, but lay quiet and passive. By next morning they had taken their departure.—A. H. Wood, *Painted Post*, N. Y.

MIGRATION NOTE. Eastward trend in migration of Rose-breasted Grosbeak and Scarlet Tanager through Texas. I was interested in reading in April number of O. and O. that the Rose-breasted Grosbeak and Scarlet Tanager occur at Eagle Pass, Texas. During several years of ornithological observation I have never seen either of those birds at Gainesville, Texas, which is on the north boundary of the State and probably 300 miles east of Eagle Pass.—G. H. Riggsdale, Gainesville, Cook Co., Texas.

COUES' KEY TO NORTH AMERICAN BIRDS.—Our readers will be pleased to hear that the long promised New Edition of this work, is now advertised to be published this month.

Publications Received.

OTTAWA FIELD NATURALISTS' CLUB, TRANSACTIONS No. 4. Ottawa, Canada, 1883.

PSYCHE. A journal of Entomology, No. 117–118, January, February, '84, published by the Cambridge Entomological Club, Cambridge, Mass.

THE NATURALISTS' JOURNAL, Vol. I, No. 2, '84, published at Frankford, Philadelphia, Pa.

THE AUK. A quarterly journal of Ornithology, published for the American Ornithologists' Union by Estes & Lauriat, Boston, Mass. Vol. I, No. 2, April, '84.

RANDOM NOTES ON NATURAL HISTORY. Southwick & Jencks, Providence, R. I.

THE INDUSTRIAL NEWS. Published by The Inventors' Institute, New York, N. Y.

PEASE'S FEATHERED WORLD. Published by George C. Pease, Reading, Pa.

THE SOUTHERN POULTRY GUIDE. Published by E. H. McArthur & Co., Meridian, Miss.

FOREST AND STREAM, New York, N. Y.

SCIENTIFIC AMERICAN. New York, N. Y.

COOLEY'S WEEKLY, Norwich, Conn.

NEWPORT NEWS, Newport, R. I.

CORRESPONDENCE.

NOTES FROM HARTLAND, VT. (O. and O., IX, pp. 35 and 45.) Mr. F. M. Goodwin writes as follows:

"I saw in the last issue of the O. and O. some were in doubt as to the Great Northern Shrike (*Lanius borealis*) nesting in Hartland, Vt., and asked if I had the eggs or birds. The eggs were hatched and so I did not take the birds. I examined them thoroughly and then showed them to Mr. C. O. Tracy, of Taftsville, Vt., and he called them the same beyond a doubt. There cannot be any question against our identification. The case was a rare one truly, but it was an actual occurrence."

THE BLACK-BACKED WOODPECKER. A. H. Wood, Painted Post, N. Y., says: "In regard to the statement of N. A. Eddy, you may say that the Black-backed Woodpecker is not a very rare bird thirty miles north of Mackinaw on the upper peninsula of Michigan. It makes its appearance there about Nov. 1st."

NEW YORK LAWS AS TO BIRD COLLECTING. A correspondent asks how permission can be obtained to collect Birds in New York. We forwarded his inquiry to a legal friend in New York city (Mr. W. B. Carpenter,) who in reply recites ¶¶ 12 and 13 of New York Revised Statutes (L. 1879, Chap. 534,) which prescribe penalties for killing or selling Birds. He points out that the succeeding Section (14) says: The last two sections shall not apply to any person who shall kill any bird for the purpose of studying its habits or history or having the same stuffed and set up as a specimen, or to any person who shall kill on his own premises any Robins in the act of destroying fruit or grapes.

BLEACHING BONES. D. D. Stone asks us for some good preparation for bleaching skeletons, "one that will not injure the smooth surface of the bones." The following from an old note-book may answer his purpose:

"Expose to the light under the surface of spirits of turpentine, taking care that the article does not touch the bottom of the vessel. Time four days."

Our correspondent also asks for an A1 receipt for making Bird Lime.

Regarding moths, etc., attacking skins, Mr. R. J. Tozer says: "I use no arsenic whatever, preferring a strong solution (in alcohol) of corrosive sublimate with a little glycerine added to keep the skins pliable. I cannot say they have kept thirty-five years, as that's before my time. But some specimens have been left lying about in all sorts of places for ten or twelve years, intact."

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PAWTUCKET, R. I., JUNE, 1884.

No. 6.

Migration in the Mississippi Valley.

Since the list and map were published last month many recruits have joined our ranks, raising the total number of observers to one hundred and forty-eight. A supplementary list of observers and stations will be published next month.

We have chosen for the central date of the notes this month the fifth of April, but like many ministers, we shall be careful not to stick to our text.

We will, as before, begin at the south and work northward. At Mason, Texas, 30°⁸, we find the whole face of the country a mass of bloom. Peaches have set and are beginning to grow. Among the blossoms are numbers of Hummingbirds which arrived March 28, but no Robins are seen, as the last one left March 27. A little farther north at San Angela, Texas, we ran across one of the unexpected habits of birds. The Carrion Crow, (*C. atrata*), is given as never wintering there, and the first arrival on March 19, while at Caddo, I. T., 34°¹, two hundred miles farther north, they were numerous all winter. The Blue-gray Gnatcatcher is also marked as "April 6, first arrival," after having been common at Caddo for over two weeks. We cannot explain such irregularities by supposing a mistake in the notes, for Mr. Lloyd is a keen-eyed and reliable observer. It is more reasonable to suppose that the high arid plains of Western Texas, do not furnish food in the winter time for many species which find a congenial winter home in the same latitude further east, and that having

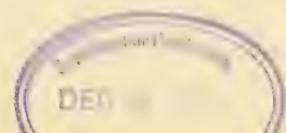
retired farther south for the cold season, they are naturally later in their spring journey.

In Mississippi we find ourselves in the land of flowers. At Yazoo City 32°⁵⁰, roses and honey-suckles were in full bloom April 6, and apple trees hung full of fragrance two weeks earlier. Hummingbirds are here also, arriving April 4, preceded on March 31 by the Whippoorwill. Judge Mayes tells us that for many years he and his family have listened closely for the first cry of the Whippoorwill and only once has it varied more than twenty-four hours from April 1.

From the many stations through which the Clay-colored Sparrow (*S. pallida*) has passed and will pass, but few notes of his appearance will be sent. At Gainsville, Texas, 33°⁶, he was seen March 29 in company with the first Bullock's Orioles. We may also with a tolerable degree of certainty expect notes on it from two more stations, but its written record is sure to be short.

As we pass northward we find a few arrivals at Reeds, Mo., 37°⁰, where the Kingbird (*T. carolinensis*) arrived April 8, and the Barn Swallow, (*H. horreorum*), on the 4th. These Barn Swallows had appeared in large flocks at Abbeville, La., 29°⁵⁷, on March 27, so that to fill the appointment at Reeds they must have traveled sixty miles a day,—a short hour's work for them, however, so they do not need our pity.

During the last days of March and the first days of April, the Purple Martin



(*P. subis*) has been writing parts of his life history over all the southern half of our territory. By April 3, his appearance had gladdened the hearts of the watchers all the way from the Gulf to southern Minn. But how different his surroundings! On March 25 he is resting at Abbeville La., 29⁵⁷, where the air is fairly alive with his winged food. About ten days later one of his cousins invades, single-handed, the icy north and appears at Lanesboro, Minn., 43⁴⁸, braving a temperature of "many degrees below freezing," whence he must retreat or perish. Whichever alternative he accepted, certain it is that none of his kind were again seen until the weather moderated.

Probably at no place in the broad Mississippi are the Martins so closely and intelligently studied as at Mr. Widmann's in St. Louis. In his back yard are a great many comfortable bird houses each numbered and standing on a separate pole. The whole family unite in watching the birds and a full and exact record is kept of the inmates of each box. The record reads like a fragment of one of nature's love stories. Here is part of it:

"March 24. The first arrivals were seen at 4.45 p. m., being three birds southeast of us above the Mississippi. They disappeared without coming nearer. March 25. At 4.45 p. m., the first of *our* Martins arrives. It was an old male and descending with a cheerful cry of recognition, it alighted on a box, rested a few minutes, looked into several boxes and left again. At 5.45 it returned and remained within sight until 6.20, when he retired to spend the first night in one of our boxes. March 28. In the morning the second male arrived. March 29. At 2.30 another male visits ours, rests a little and disappears in the north. Therefore we mark him as the first transient visitor this spring. March 30. Our two Martins remained in their boxes most of the cool, bright morning, when at 10.30 the first female arrived.

She was greeted with excited, continued carols, and did not at first know what to do. She visited alternately their boxes, Nos. 2 and 5, which they had selected for their homes, until she decided for No. 2 and retiring with him, has remained with him ever since. At 11.45 another male visits us but soon leaves again. At 6.30 p. m., a party of six males and females go straight north. March 31. There is an increase during the day. At one time, 6 p. m., ten Martins were in the air. No. 5 captures a female and brings her home in the evening. Another male which had arrived during the day was less fortunate; he comes home in the evening accompanied by a female. She alights on the box which he enters with melodious strains of invitation and persuasion, reappearing immediately to see why she does not follow him. But when he found she had already left, his astonishment and chagrin were plainly visible. He is a bachelor to this day, returning alone to his box, No. 17. It will be interesting to note whether or not he remains a bachelor all summer as the one did last year. April 3. Another male arrives and takes lodgings in No. 1. Up to April 6 the same numbers remain; that is, two pairs and two single males. There are hardly twenty birds in the whole southern part of the city, in a district where two months hence there will be two hundred; hence we say that ten per cent have arrived."

At the end of the season it will be worth our while to read of the courtships and varied domestic life of these same Martins; of their wonderful diligence in bringing food to the young and the curious haps and mishaps which befall them.

But all this time birds have been moving northward, and we must hasten and overtake them. Put on your overcoat for you will soon need it. A second winter visited northern Illinois, Iowa, Wisconsin and Minnesota during the first week in April, and proved a decided though temporary

check to migration. The stations in northern Dakota report the commencement of the storm April 2d and 3d. Then come reports all along the line until the southern limit of snow is reached approximately at Grand Ridge, Ill., 41¹⁸, which reports "April 8, four inches of snow fell last night."

The northward bending of the isothermal lines as we go northwest is clearly shown by the record of the grass. At River Falls, Wis., 44⁴⁵, on April 8 the record reads "the grass shows little or no green as yet; snow still on north side of hills." Frazee City, Minn., 46³³, on April 3 reports "ice on lakes still solid," while far to the west at Menoken, Dak., 46⁵⁸, the grass had started and was growing finely in the last part of March. In these latter places, they tell us the first spring birds have just arrived at Frazee City, the first Robin came April 3 and at Larimore, Dak., 47⁵², the first Ducks were seen April 2.

Apropos to the note from Lanesboro, Minn., appearance and immediate disappearance of the first Martin, it is hard to refrain from a brief sermon on the fickleness of birds and the unreliability of those notes which do not take this fickleness into account. But these remarks like all good sermons, must be taken as entirely impersonal. It is not always safe to mark as "first," the first bird of a species which is seen. Many birds wander far ahead of their fellows and put in an appearance which is as purely accidental as if they had come months before in the depth of winter. For this reason instructions were issued, "note the first bird of each species seen and then for the next few days watch closely to see whether this is an accidental occurrence or the normal first of the migration of the main body." It is better to make the "F" indicate the first bird of the regular movement of the species as a whole, then the notes can be used intelligently and accurately.

To determine whether the first appear-

ance is normal or accidental takes more time than most of the observers can spare, and from those who have both the ability and the opportunity, it has been well nigh impossible to get any accurate information on this particular point. Moral—if a sermon is allowed to have a moral—Don't fail to send in whatever notes you do make, and next year we will all do better.

What a rambling discourse this is getting to be. We had better return to birds before we completely lose sight of the subject in hand.

Heron Lake, Minn., 43⁴⁸, informs us that Canada Geese were laying April 12, and Mallards in pairs everywhere, while the law allows water fowl shooting until May 15. A good chance for missionary work. It is a pity some of the Solons are not ornithologists.

This spring has been a remarkable one for the Evening Grosbeaks (*H. vespertina*.) Along the whole line of the Mississippi in Minnesota, they have been abundant. For years they have been known as one of the most regular winter visitants to the vicinity of Minneapolis, but this spring they have wandered to Southern Minnesota and Northern Iowa. At Lanesboro, Minn., 43⁴³, they came early and stayed late. Indeed, on April 1st, they were among the most common birds for some miles down the valley of the Root River.

In conclusion, it may be well to insert a copy of a circular which will soon be sent to each observer.

"Our labors this spring are drawing to a close; the northward migration is ended and but little remains to be chronicled.

Please send as soon as possible whatever notes have not been forwarded, and accompany them with the following papers, unless the information has already been furnished:

1. A list of all the birds that have ever been known to breed in your vicinity, marking with a cross those which are known to be breeding this summer. Any

observations on the nesting of the rarer kinds will be gladly received.

2. A list of those birds which have never been known to breed, but which have been seen during the breeding season, giving, if possible, an approximation of the date of observation.

3. A brief description of the character of the country in which the observations were made, in regard to altitude, water, prairie, character of timber, etc.

4. A summary of the opportunities the observer has had for watching the birds, and the use that has been made of these opportunities."

In order that the semi-annual report may be made in season, it is highly desirable that all further notes be forwarded at once.—*W. W. Cooke, Red Rock, Ind. Ty.*

Michigan Notes.

Having never written for the O. and O. it is with some trepidation that I take up my pen. I am led to do so from a feeling of exultation in the recent efforts of two of our Michigan ornithologists in sending to your paper the very interesting notes which have lately appeared. Dr. Atkins of Locke has penned some able notes of late regarding our favorite study, and Mr. N. A. Eddy's notes from Bay City are extremely interesting. The New England States lost a competent observer when Mr. Eddy left the coast of Maine, but the change is immeasurably our gain.

Michigan has gained new recruits within the last few years, and with the present corps of efficient workers, a constantly increasing list of birds clearly proves that valuable service is rendered each season. There are now, on a compiled list before me, 340 species and races known to the various collectors of the state, and it is reasonable to believe that within a few seasons we can fairly boast of a more complete and varied catalogue than is now possessed by any adjacent state. The list is a compilation of the catalogues and observa-

tions of over twenty students of our avian fauna. The first list, by Professor Sager was published in 1839 and contained only 163 species, while a list published in 1879 gives 310 species and races, and indicates the advancement made in this line. We have now twelve competent observers, and the present season gives promise of much desirable information.

A few random notes are incidentally taken from seventeen years' observations.

The following species of the Thrush family are well known to most of our ornithologists: Robin, Catbirds, Wood, Hermit, Swainson's, Wilson's and Brown Thrush. I have the eggs of all in my collection, and have found all to breed South of 44° north latitude. Dr. Atkins informs me, however, that the Alice's Thrush is found in the State. The Forest and Stream Bird Notes, by Mr. Bailey, mentions the species also, as a Michigan bird, as given some years ago by Mr. G. A. Stockwell, known to the readers of the F. and S. as "Archer." Mr. Stockwell gives our state credit for at least nine species of birds that are not known to the other collectors, and mentions as common, many species not generally considered so. Among others, he embraces the Fish Crow and Stone Chat. Will any one acquainted with Mr. S. kindly send his address?

Twelve species of Hawks are known in this county, of which the breeding habits are known of six. The rarest Hawk found breeding here is the Broad-winged. The nest found by myself on May 25th, 1875, being the only example thus far. The eggs, two in number and fresh, were taken from a large Black Ash over six feet in circumference, and quite ninety feet from the ground. The nearest limb was all of sixty feet from the ground and in securing the eggs I had the hardest climb that I have ever undertaken. Both old birds were secured. The Red-tailed Hawk is very common and breeds in abundance. The eggs are generally laid

during the early part of April, but many eggs are found in March. A set that I secured the 18th of April was just ready to hatch. The eggs are usually two in number, occasionally three and rarely only one. The nest, a bulky structure, is usually built well up in an oak tree, and I have seen them all of ninety feet from the ground. Occasionally a nest is not more than thirty feet from the ground, but as a rule the average may be placed at sixty feet. One hard climb that I had, occurred on a bright Sunday morning, 1877, and came near being my last one. The Buzzards had built quite seventy feet from the level and on a large branch of a black oak fifteen feet from the trunk. In ascending the tree the climb was laborious, and a small limb about thirty feet up gave me a good rest and an opportunity to make my plans for the rest of the undertaking. After securing the eggs I returned very quickly on the under-side of the limb to the trunk, but failed to observe the extra thickening of the tree on the side where the large limb joined the body, and in which part the girth of the fork was all of eight feet. Hanging in the ridiculous position, with both legs dangling in the air vainly scrambling for a foothold, and unable to go up the large limb, quite fifteen inches through, I had an excellent opportunity to repent of the evils of birds' nesting on the Sabbath. But the eggs reached the collecting box in due time without a crack, although, as usual, when climbs are made without climbers my garments showed wear, and sundry deep scratches on the shins, proved conclusively, that the hard bark of the tree had been tightly hugged in my descent.

The Red-shouldered Hawk is not so common or at least its nest is not nearly so often found. The nests are generally built in lower lands, nearer river bottoms. The nests are rarely found in oak trees; never, in my experience. The eggs, usually three in number, rarely two and sometimes four, are a little smaller than the eggs of the

Red-tail in the dimensions of a series of sets, but many eggs are larger than small Red-tails.

Of the two common species of Buzzard here, Messrs. Syke and Chapin have secured at least forty sets of eggs.

The Marsh Hawk breeds here in a few isolated marshes. Five eggs are usually laid, on the ground or in a rude nest in a marsh. The Cooper's Hawk and Sparrow Hawk also breed here each year, but the eggs of the latter are rarely taken owing to the fact that the nest is always placed in a decayed stub and dangerous to secure.

Three species of Owls have been found breeding here. A nest of the Long-eared Owl taken April 27th, 1878, contained six fresh eggs. It was built in a Tamarack forty feet from the ground and was a large compactly built structure, composed of dead twigs and plentifully lined with feathers. All of eighteen inches in diameter this nest was deeply hollowed, and so large for the size of the bird that she could not be seen from below while sitting. Another nest of this owl was built on the top of a stub twenty feet from the ground. The five young, two-thirds grown, were secured May 22d, 1878.

A nest of a Screech Owl containing five fresh eggs, was discovered nine feet from the ground in a dead stub twenty feet high, in the early part of May, 1878.

The first egg taken of the Great Horned Owl, was in 1874, and occupied the nest with a young owl. Up to 1879, this egg, in my collection, was the only example taken in the county, but during the last few years a number of sets of "Hoots" have been taken by various collectors. The earliest record of two eggs in a nest, is Feb. 12. The nests are found in greater numbers in the latter part of February. Messrs. Syke, Chapin and Nolan who have thoroughly canvassed the country for nests of this species, have succeeded in securing about twelve complete sets of eggs. In

most of the nests were found two eggs, while in one or two cases only one egg was found. This single egg was partially incubated however, showing that no more were to be laid. The nests are more frequently built in the hollows of trees, and the Elm, Oak, Beech and Maple are those usually selected. However, nests are frequently found in large forks of trees, and as these same nests are known frequently to have been occupied by Red-tailed or Red-shouldered Hawks previous years, it is fair to suppose that when Owls do not build in hollow trees, they select old Hawk's nests. One nest containing eggs was found as late as April but generally by the 15th of that month the young may be observed flying about. One season Mr. Syke made his collection walking over three feet of snow on snow-shoes, carrying his climbers in his hand until a favorable tree was reached. In a day's tramp over miles of snow bound country, with a chilly wind blowing, the enthusiasm of a collector is thoroughly tested.

One nest that I visited was in the hollow of a dead maple. In attempting to scale the shaky hulk Mr. Syke lost his hold in the rotten wood and fell some distance, but fortunately caught in a live Beech.

Mr. Syke is a most intrepid climber and the boast made by many that he can climb any tree in the country is undoubtedly not at all vain. I have repeatedly seen him climb trees nine feet in circumference, and he makes a small matter of walking up the smooth barked sycamores to the Great-blue Heron's nests.—*Morris Gibbs, Kalamazoo, Mich.*

Migration and Breeding Notes.

Will the difference in food in part account for the arrival of the House Phœbe a full month before any other Flycatcher? And, relatively, does the food supply also explain why the Robin and Phœbe are silent, save short notes of alarm, when they first arrive, while the Oriole and the Vireos are as jocund and jolly on the day

of their arrival as after they have been here a month? The Phœbe came this year in March, close on the heels of the Three Blackbirds, and except the Swift and Swallows there wasn't an arrival of note till May. But, (Mayday) Chebecs, Chewinks, Catbirds, Thrashers, Wrens and Yellow Warblers came, and were all abundant on the 4th. On the 4th, Kingbirds, Baltimore and Orchard Orioles appeared sparingly, and were commonly seen as usual on the 6th and 7th. Not over a dozen pairs of Orchard Orioles nest in this neighborhood, and the bird is little known here, popularly speaking. Male Tanagers and Hummers were on hand May 8th, and the very first Bobolink. This dusty miller gets to Northampton, Mass., May 15th. May 9th, Warbling Vireos and Wood Thrushes began their music, and scores of Blue Yellow-backs were singing in their breeding haunts, where I have taken their eggs some seasons May 20th. Look for Orioles when cherry blossoms are opening, for Hummers when your Missouri currant begins to flower, and for Tanagers when an emerald film can be seen against the sky in the chestnut woods. Sunday, May 11th, Bob White and the Whip-poor-will began to indulge in their vocal personalities. From Plain Hill, Norwich, seventeen miles inland, April 17th, were seen twenty-one strings of Geese, journeying due north.

At this same early date, I found four Crows' nests with full complements of eggs. May 13th, I pounded on the trunks of fourteen trees and fourteen Crows flew from their clutches. Often sitting Crows are betrayed by their tails, but many times the birds are wholly hidden in the hollow of the nests. May 15th, found numbers of Jays with full and incomplete clutches, all of which argues plenty of Corvine society this season.

That a sitting game bird throws out little or no effluvium is generally believed, but last spring my dog stood on a Wood-

cock with a fresh clutch of eggs and on one hovering newly hatched young. This spring he pointed two nesting females, one on a badly incubated set as early as April 7th. Still, the notion of 'no scent' may be truer of Grouse and Quail than of Snipe. An old darkey, who had once catered to delicate palates in Dixie, or who had read the O. and O. article on egg gastronomy, brought me May 8th, a basket of eggs of Ruffed Grouse, saying he could swear they were fresh, because they were but eleven eggs the day before and twelve the day he brought them. I told him it was \$50 fine for every Partridge's egg taken or destroyed, and if he didn't put the eggs back at once, I'd prosecute him. Badly scared, he swore he would have the eggs back in the nest in twenty minutes, and I trust the clutch was not forsaken. Collecting Hawks' eggs May 9th and May 11th, I flushed Ruffed Grouse from clutchess of fifteen and sixteen eggs, which indicates continued abundance of this favorite game bird. A cold storm late in May, though, is often very destructive to the young Grouse. It is queer how very difficult it is to find a Quail in March or April, but as soon as the farmer begins to plant his corn they seem to spring up in every field in pairs, trios and bunches, and at every half-mile on the country turn-pike can be heard an old whistling cock.

As I close these notes on the 15th of May, a Cooper's Hawk made a bold dash into our garden in the heart of the city to the consternation of the Sparrows. Indigoes, Chats and Grosbeaks were noted today. Other observers will doubtless agree that the bulk of arrivals was in the first half of May. From our wild orchestra no instrument is now missing but the tomtom of the Cuckoo; and whatever doubt there may be about first position, there can be no question as to the right of Master Cuculus to the extreme rear of the army of migration.—*J. M. W., Norwich, Conn.*

The Oregon Jay.
(*Perisoreus obscurus.*)

On May 4th, I noticed an Oregon Jay building. When discovered, it was clinging to the trunk of a tree like a Wood-pecker, pulling out bunches of moss and dropping them. After dropping several he seemed to find one that suited and flew off with it. I watched and saw him disappear in a tree at a little distance. I could see nothing of the nest, but as both birds were flying in and out with sticks, moss, etc., I was sure there was one being built there.

I visited the locality on the 16th, and on the 21st, this time climbing up to the nest. I found it completed, but no eggs, and I saw nothing of the birds.

On the 31st, I again climbed up, and was rewarded by finding five eggs; incubation just begun. The bird sat on the nest until I almost had my hand on her, then flew off with a low whistle and disappeared, but returned in a few minutes and began flying around, uttering low, worried whistles. I promptly shot her.

The male did not put in an appearance. The nest was in a fir, about eighty-five feet from the ground and about ten feet from the top of the tree. It was built close against the trunk and was composed of sticks, twigs and moss, rather loosely put together, and lined with cow hair, a few bunches of wool and one or two feathers of *Bonasa U. sabinei*. It measured: Inside diameter, $3\frac{1}{8}$ inches; depth, $2\frac{7}{8}$ inches; outside diameter, $7\frac{3}{4}$ inches; depth, 5 inches.

The eggs were five in number, very light blue with a very slight greenish wash. They were thickly covered with spots of two shades of brown, one dark and the other very light, collected mostly on the larger end, and in one specimen a few black hair-like lines over the large end. They measured $1.15 \times .80$; $1.15 \times .82$; $1.10 \times .82$; $1.15 \times .85$; $1.12 \times .80$.—*A. W. A., Beaverton, Oregon.*

THE
ORNITHOLOGIST
—AND—
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A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

Dr. Elliott Coues sailed for England, May 24th, partly for the purpose of consulting foreign libraries in furtherance of his great work, the "Biography of Ornithology."

"Under which King, Bezonian?" If we must choose, we would call this the Couesian period. Professor Baird belongs to Natural History in general—Dr. Coues to Ornithology.

We notice with pleasure the unusual number of articles which have appeared in the magazines during the last few months on matters Ornithological, showing an increasing popular interest in Bird Life. Among many, we refer especially to "Nature's Serial Story" which is appearing in *Harper's Monthly*, illustrated by many excellent engravings.

Among the signs of the times are to be noted the increased number of periodicals which have cropped up of late on Ornithology and its associates. These appear to be mostly advertising enterprises of a more or less ephemeral character. They will probably prove a disappointment to their promoters, but in the meantime they assist in frittering away the support to

which established magazines are fairly entitled.

A very excellent panel photograph of the founders and officers of the American Ornithologists' Union has been sent to us by A. Bogardus & Co., of New York. The heads, twenty-five in number, are grouped artistically, and all appear to be satisfactory photographs. The general effect is quite equal to anything of the kind usually seen, and the size of the composition is sufficiently large for the purpose intended.

In reference to the much agitated subject of Trinomials, Dr. Coues says: "The definite principle and rule of action is, that the third term of the technical name is given to climatic or geographical races, varying according to known conditions, as latitude, elevation, temperature, moisture and conditions of all sorts. The practice, therefore, has a logical basis, a consistent possibility of strict scientific application. It appears to me to be a simple, natural and easy way of disposing of a large number of intermediate forms which have not become specifically distinct from their respective allies."

Several correspondents of the "*Forest and Stream*" refer to the wholesale destruction of the Baltimore Oriole and other bright-plumaged songsters for millinery purposes. However large the demand may be, there seems to be no immediate fear that any of our summer visitors will be exterminated. While we sympathize to a great extent with the indignation excited, it must be borne in mind that the grievance is purely sentimental. It has often been pointed out that the birds of prey are far more destructive than either collectors or professional taxidermists. And in the nature of things, so long as ornaments are required, a supply will be found. If animals may legitimately be slaughtered for their furs, why not birds for their feathers?

Key to North American Birds.

At no previous period in the history of Ornithology have its students been so numerous or enthusiastic as at present. Various circumstances have lately brought the study of Birds on both sides of the Atlantic prominently before the general public. The interest thus excited, if not deeply rooted, is an encouragement to those who have made the study their life work, and have brought to it a scientific temperament which has worthily gained for them the position of leaders and guides to their more humble followers. Among these, *primus inter pares*, stands Dr. Elliott Coues, whose numerous and thoroughly reliable works have gained him the enviable position he now holds.

The re-publication of his "Key,"* if long delayed, has come at an opportune moment, and serves to emphasize an era in the history of North American Ornithology. It is, unfortunately, only possible within the limits at our disposal, to give our readers a very inadequate idea of the contents of this volume.

The "Key" retains little of the former edition except the name and purpose. It has been entirely re-written, and contains a much larger number of illustrations—some original, and others from various acknowledged sources.

We notice especially the conscientious care of the author to make his descriptions perfectly clear and precise, and to leave no loophole for a misunderstanding of his meaning. Not only are the Latin and Greek words exactly translated, but

*KEY TO NORTH AMERICAN BIRDS. Containing a concise account of every species of Living and Fossil Bird at present known from the Continent north of the Mexican and United States boundary, inclusive of Greenland. Second edition, revised to date, and entirely re-written, with which are incorporated GENERAL ORNITHOLOGY: An outline of the structure and classification of Birds; FIELD ORNITHOLOGY: A manual of collecting, preparing and preserving Birds. By Elliott Coues, M. A., M. D., Ph. D., Member of the National Academy of Sciences, etc., etc. Profusely illustrated. Boston: Estes & Lauriat, 1884, pp. XXX—863.

the less common words of Latin and Greek origin are clearly explained.

As the necessity for this has been frequently pointed out in this magazine, we refer to the matter with much pleasure, being convinced that the popularity of the work is enhanced thereby.

The book is divided into four parts. Part I, pp. 1—58, consists of the author's "Field Ornithology," originally published as a separate treatise in 1874. It is reprinted nearly *verbatim*, but with some little amplification towards its end.

Part II, pp. 59—236, consists of the introductory matter of the old "Key" very greatly amplified. It is a sort of "Closet Ornithology" as distinguished from a "Field Ornithology," teaching the principles of the science and illustrating their application.

Part III, pp. 237—820, being the main body of the work, describes all the species and sub-species of North American Birds known to the author, defines the genera, and characterizes the families and higher groups. The descriptions are much more elaborate than those of the old "Key"—the purpose kept steadily in view being the ready identification of specimens. Geographical distribution is also more fully treated, and more attention has been paid to the descriptions of the plumages of females and young birds.

Part IV, pp. 821—830, consists of a synopsis of the Fossil Birds of North America, and has, as before, been revised by Professor O. C. March.

That the author has availed himself of the many treatises which have appeared since the former "Key" was written, and of the researches of numerous workers in the interval, goes without saying.

In the present condition of scientific research, when so many monographs are published both in the magazines and as separate volumes, it is always well periodically to look over the field as a whole, to see where we are and what real work has

been accomplished. For this survey in the Ornithological field, talents of no ordinary character are required, but such talents we venture to think Dr. Coues possesses in no ordinary degree. Criticism may lay hold of some detail of his work, but must be silent when it is considered as a whole. To the Ornithologist, Dr. Coues' "Key" will be a dictionary with much of the usefulness of an encyclopaedia.

The Death of Edgar A. Small

Took place at Hagerstown, Maryland, April 28, 1884, in the twentieth year of his age. He was the son of Albert Small, a prominent Maryland lawyer. He early formed a great love for Natural Science, which intensified through the few years of his life. About eight years ago a spinal disease, resulting from a slight injury, fastened upon him. He bore frequent operations with characteristic patience, but its course resisted all the efforts of medical skill and finally resulted in his too early death.

Edgar Small, though but a boy in body, was a man in mind. He was a thorough student of Nature, and his progress was wonderful, in spite of the obstacles resulting from his illness. In his maturer years it was seldom that he got into his favorite woods and fields except by carriage, but his thirst for knowledge was so intense that such brief excursions showed him more than could be seen by ordinary people. When unable to do even this, he would lie on his back and paint the objects he was unable to visit in their native groves. We have in our possession a fine oil painting of a Sparrow Hawk made in this way. He had mounted the bird on a piece of New England white birch previous to painting. This and other matters in our possession showed a genius promising a valuable life we can ill spare from among us. We found him a reserved, cautious boy, a careful student of Nature's

ways, with an intuitive knowledge which enabled him to see with the mind what others failed to see with the eye. His statements were made in a plain, unassuming manner, and errors were promptly and cheerfully acknowledged. His early death, if a loss to the science he loved, is to him a blessed relief from a life that must have been one of continuous suffering.

To his parents, bereaved of the object of their love and solicitude, we tender the sincere sympathy of the Ornithologists of the United States, many of whom had learned to appreciate his worth and the value of the labors promised, had his life been lengthened.

Birds of Silver City, New Mexico.

The latter part of November found me located in Silver City, a thriving mining town, situated among the foot-hills of the Rocky Mountains, in the southwestern portion of New Mexico, some sixty miles from the Mexican boundary. The country in the immediate vicinity is broken and rolling; to the north and west foot-hills and mountain peaks, and to the west and south the prairie. Pine, Pinon, Cedar, Scrub Oak, short Gram grass and a variety of Cacti are the principal forms of vegetation, while of water there is none, except a few scanty streams far back among the mountains. Other matters interfered with my observations of the bird life until January, and doubtless many additions could have been made to the subjoined list the greater portion of which were taken within a few miles of the town:

- NOVEMBER, 1883
- 1 Californian Bluebird, (*Sialia mexicana*), 22, 23, 29.
 - 2 Rocky Mountain Bluebird, (*Sialia arctica*), 23, 29.
 - 3 Townsend's Solitaire, (*Myadestes townsendi*), 29.
 - 4 Wollweber's Titmouse, (*Lophophanes wollweberi*), 29.
 - 5 Lead-colored Titmouse, (*Psaltriparus plumbeus*), 29.
 - 6 White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 22.
 - 7 House Finch, (*Carpodacus frontalis*), 22, 29.
 - 8 Oregon Snowbird, (*Junco oreganus*), 22, 23, 29.
 - 9 Pink-sided Snowbird, (*Junco annectens*), 2, 3, 29.
 - 10 Gray-headed Snowbird, (*Junco caniceps*), 13, 29.
 - 11 Canon Towhee, (*Pipilo fuscus mesoleucus*), 22, 23, 29.

- 12 Red-winged Blackbird, (*Agelaius phoeniceus*), 29.
 13 Western Meadow Lark, (*Sturnella neglecta*), 23.
 14 Brewer's Blackbird, (*Scoteophagus cyanocephalus*), daily seen in the streets.
 15 Pinon Jay, (*Gymnoccitta cyanocephala*), 29.
 16 Mexican Shore Lark, (*Eremophila alpestris chrysolaemata*) 22, 23, 29.
 17 Red-shafted Flicker, (*Colaptes auratus mexicanus*), 29.
 18 Red-tailed Hawk, (*Buteo borealis*), 29.
 19 Mourning Dove, (*Zenaidura carolinensis*), 22, 23, 29.
 20 Mexican Turkey, (*Meleagris gallopavo*), 30.
 21 Gambel's Quail, (*Lophortyx gambeli*), 19, 29.
 22 Blue Quail, (*Callipepla squamata*), 29.
 23 Massena Quail, (*Cyrtonyx massena*), 16.

DECEMBER, 1883.

- 1 Western Robin, (*Merula migratoria propinqua*), 31.
 2 Californian Bluebird, (*Sialia mexicana*), 20, 25, 27, 31.
 3 Rocky Mountain Bluebird, (*Sialia arctica*), 20, 25, 27, 31.
 4 Townsend's Solitaire, (*Myiadestes townsendi*), 20.
 5 Wollweber's Titmouse, (*Lophophanes wollweberi*), 27.
 6 Lead-colored Titmouse, (*Psaltriparus plumbeus*), 27, 31.
 7 Texan Bewick's Wren, (*Thryomanes Bewickii leucogaster*), 25, 27.
 8 House Finch, (*Carpodacus frontalis*), 25, 31.
 9 Intermediate White-crowned Sparrow, (*Zonotrichia gambeii intermedia*), 20, 27.
 10 Oregon Snowbird, (*Junco oregonus*), 20, 25, 27.
 11 Pink-sided Snowbird, (*Junco annectens*), 20, 25, 27.
 12 Gray-headed Snowbird, (*Junco caniceps*), 27.
 13 Canon Towhee, (*Pipilo fuscus mesoleucus*), 20, 25, 27, 31.
 14 Brewer's Blackbird, (*Scoteophagus cyanocephalus*),—daily.
 15 Woodhouse's Jay, (*Aphelocoma woodhousei*), 20, 25.
 16 Red-shafted Flicker, (*Colaptes auratus mexicanus*), 27.
 17 Massena Quail, (*Cyrtonyx massena*), 27.

JANUARY, 1884.

- 1 Western Robin, (*Merula migratoria propinqua*), 26.
 2 Mockingbird, (*Mimus polyglottos*), 26.
 3 Californian Bluebird, (*Sialia mexicana*), 1, 3, 5, 11, 17, 23, 16, 30.
 4 Rocky Mountain Bluebird, (*Sialia arctica*), 1, 3, 5, 11, 17, 23, 26, 30.
 5 Townsend's Solitaire, (*Myiadestes townsendi*), 1, 3, 7, 11, 27, 31.
 6 Gray Titmouse, (*Lophophanes inornatus griseus*), 11.
 7 Wollweber's Titmouse, (*Lophophanes wollweberi*), 1, 3, 30.
 8 Lead-colored Titmouse, (*Psaltriparus plumbeus*), 1, 11, 26.
 9 Black-eared Titmouse, (*Psaltriparus melanotis*), 1.
 10 Texan Bewick's Wren, (*Thryomanes Bewickii leucogaster*), 30.
 11 White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 11, 30.
 12 House Finch, (*Carpodacus frontalis*), 1, 5, 11, 26.
 13 Pine Goldfinch, (*Chrysomitrix pinus*), 3.
 14 McCown's Longspur, (*Rhynchophanes macconnelli*), 26.
 15 Intermediate White-crowned Sparrow, (*Zonotrichia gambeii intermedia*), 5.
 16 Oregon Snowbird, (*Junco oregonus*), 1, 3, 11, 17, 26, 30.
 17 Pink-sided Snowbird, (*Junco annectens*), 1, 3, 11, 17, 26, 30.
 18 Gray-headed Snowbird, (*Junco caniceps*), 11, 26, 30.
 19 Spurred Towhee, (*Pipilo maculatus megalonyx*), 1, 17, 31.
 20 Canon Towhee, (*P. fuscus mesoleucus*), 1, 3, 11, 17, 26.
 21 Western Meadow Lark, (*Sturnella neglecta*), 17.
 22 Brewer's Blackbird, (*Scoteophagus cyanocephalus*), daily.
 23 Pinon Jay, (*Gymnoccitta cyanocephala*), 26.
 24 Woodhouse's Jay, (*Aphelocoma woodhousei*), 3, 5, 26, 30.
 25 Mexican Shore Lark, (*E. alpestris chrysolaemata*), 26.
 26 Red-shafted Flicker, (*Colaptes auratus mexicanus*), 26.

- 27 Road-runner, (*Geococcyx californicus*), 22.
 28 American Long-eared Owl, (*Asio americanus*), 3, 11, 17.
 29 Red-tailed Hawk, (*Buteo borealis*), 5, 23.
 30 Gambel's Quail, (*Lophortyx gambeli*), 3, 17, 23.
 31 Blue Quail, (*Callipepla squamata*), 3, 31.

FEBRUARY, 1884.

- 1 Western Robin, (*Merula migratoria propinqua*), 2, 16, 21, 23.
 2 Rufous-vented Thrasher, (*Harporkynchus crissalis*), 9, 12, 26.
 3 Californian Bluebird, (*Sialia mexicana*), 2, 7, 12, 14, 16, 19, 23, 26, 29.
 4 Rocky Mountain Bluebird, (*Sialia arctica*), 7, 12, 14, 16, 19, 23, 26, 29.
 5 Townsend's Solitaire, (*Myiadestes townsendi*), 9, 14.
 6 Ruby-crowned Kinglet, (*Regulus calendula*), 6, 12.
 7 Gray Titmouse, (*Lophophanes inornatus griseus*), 2, 7, 12, 8 Wollweber's Titmouse, (*Lophophanes wollweberi*), 2, 23.
 9 Lead-colored Titmouse, (*Psaltriparus plumbeus*), 2, 16.
 10 Black-eared Titmouse, (*Psaltriparus melanotis*), 16.
 11 Texan Bewick's Wren, (*Thryomanes Bewickii leucogaster*), 9, 23.
 12 White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 16, 29.
 13 House Finch, (*Carpodacus frontalis*), 9, 12, 21, 23, 26, 29.
 14 Pine Goldfinch, (*Chrysomitrix pinus*), 23, 26.
 15 Chestnut-collared Longspur, (*Centrophanes ornatus*), 23, 29.
 16 Intermediate White-crowned Sparrow, (*Zonotrichia gambeii intermedia*), 14.
 17 Oregon Snowbird, (*Junco oregonus*), 7, 14, 18, 19, 23, 26.
 18 Pink-sided Snowbird, (*Junco annectens*), 7, 12, 19, 23, 26.
 19 Gray-headed Snowbird, (*Junco caniceps*), 7, 12, 23, 26.
 20 Spurred Towhee, (*Pipilo maculatus megalonyx*), 2, 23.
 21 Canon Towhee, (*Pipilo fuscus mesoleucus*), 2, 7, 14, 16, 19, 23, 26, 29.
 22 Western Meadow Lark, (*Sturnella neglecta*), 12, 29.
 23 Brewer's Blackbird, (*Scoteophagus cyanocephalus*), daily.
 24 White-necked Raven, (*Corvus cryptoleucus*), 2, 16.
 25 Pinon Jay, (*Gymnoccitta cyanocephala*), 2, 7, 23, 26.
 26 Woodhouse's Jay, (*Aphelocoma woodhousei*), 2, 7, 9, 12, 14, 16, 23, 26.
 27 Mexican Shore Lark, (*Eremophila alpestris chrysolaemata*), 14, 29.
 28 Harris's Woodpecker, (*Picus villosum harrisi*), 2, 7.
 29 Texan Sapsucker, (*Picus scalaris*), 23, 26.
 30 Red-naped Woodpecker, (*Sphyrapicus varius nuchalis*), 7
 31 Red-shafted Flicker, (*Colaptes auratus mexicanus*), 2, 7, 13, 26.
 32 Burrowing Owl, (*Speotyto cunicularia hypogaea*), 29.
 33 Cooper's Hawk, (*Accipiter cooperii*), 7.
 34 Gambel's Quail, (*Lophortyx gambeli*), 7, 26.
 35 Blue Quail, (*Callipepla squamata*), 2, 21.

MARCH, 1884.

- 1 Western Robin, (*M. migratoria propinqua*), 22, 24, 25, 28.
 2 Sage Thrasher, (*Oreoscoptes montanus*), 22.
 3 Rufous-vented Thrasher, (*H. crissalis*), 12, 17, 24.
 4 California Bluebird, (*Sialia mexicana*), 13, 18, 24, 28.
 5 Rocky Mountain Bluebird, (*Sialia arctica*), 8, 11, 13, 17, 25, 28.
 6 Townsend's Solitaire, (*Myiadestes townsendi*), 24.
 7 Lead-colored Titmouse, (*Psaltriparus plumbeus*), 17, 18, 22, 24.
 8 Rock Wren, (*Salpinctes obsoletus*), 11, 13, 17, 28.
 9 Texan Bewick's Wren, (*Thryomanes Bewickii leucogaster*), 12.
 10 White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 28.
 11 House Finch, (*Carpodacus frontalis*), 18, 19, 25.

- 12 Chestnut-collared Longspur, (*Centrophanes ornatus*), 8, 11, 13.
 13 Western Grass Finch, (*Pooecetes gramineus confinis*), 13, 25, 28.
 14 Intermediate White-crowned Sparrow, (*Zonotrichia gambeli intermedia*), 8, 11, 17, 19.
 15 Western Chipping Sparrow, (*Spizella domesticus arizonae*), 8, 11, 13, 17, 18, 19, 25, 28.
 16 Oregon Snowbird, (*Junco oregonus*), 8, 12.
 17 Pink-sided Snowbird, (*Junco aeneocephalus*), 8, 11, 25.
 18 Gray headed Snowbird, (*Junco caniceps*), 18, 25.
 19 Black-throated Sparrow, (*Ampelisiza bilineata*), 11, 18.
 20 Sparred Towhee, (*Pipilo maculatus megalonyx*), 12, 22, 24.
 21 Canon Towhee, (*Pipilo fuscus mesoleucus*), 11, 17, 18, 19, 22, 25, 28.
 22 Brewer's Blackbird, (*Scioecophaeus cyanocephalus*), daily.
 23 White-necked Raven, (*Corvus cryptoleucus*), 24, 25.
 24 Pinon Jay, (*Gymnacittia cyanocephala*), 12, 14, 15, 17, 19, 25, 26.
 25 Woodhouse's Jay, (*Aphelocoma woodhousei*), 12, 18, 19, 22, 24, 25, 26.
 26 Mexican Shore Lark, (*Eremophila alpestris chrysolaema*), 11, 23.
 27 Say's Pewee, (*Sayornis sayi*), 8, 17, 18, 19, 22, 25, 28.
 28 Texan Sapsucker, (*Picus scalaris*), 22.
 29 Red-naped Woodpecker, (*Sphyrapicus varius nuchalis*), 19, 25.
 30 Red-shafted Flicker, (*Colaptes auratus mexicanus*), 8, 11, 12, 19, 24, 25, 26, 28.
 31 Road-runner, (*Geococcyx californicus*), 15.
 32 Western Horned Owl, (*Bubo virginianus subarcticus*), 19.
 33 Red-tailed Hawk, (*Buteo borealis*), 22.
 34 Mexican Turkey, (*Melagris gallopavo*), 28.
 35 Gambel's Quail, (*Lophortyx gambeli*), 14.
 36 Scaled Quail, (*Callipepla squamata*), 22.

—Charles H. Marsh, Silver City, N. M.

Arrivals of Birds at Camden, Ind., '84.

As far as observed, the spring migrants that have, up to April 8th, returned from the South are as follows:

- February 5, Robin, (*Merula migratoria*)
 February 12, Bluebird, (*Sialia sialis*)
 February 12, Red-winged Blackbird, (*Icterus phoeniceus*).
 Another large flock seen February 19, near Bringhurst.
 February 13, Fish Duck, (*Mergus merganser*).
 March 15, Killdeer, (*Oxyechus vooferus*).
 March 15, Crow Blackbird, (*Quiscalus purpureus*).
 March 15, Meadow Lark, (*Sturnella magna*). A few remained all winter.
 March 16, Turtle Dove, (*Zenaidura carolinensis*) A few remained in favored places all winter.
 March 16, Turkey Buzzard, (*Cathartes aura*).
 March 17, Pewee, (*Sayornis fuscus*).
 March 19, Chewink, (*Pipilo erythrorththalmus*).
 March 25, Sparrow Hawk, (*Tinnunculus sparverius*).
 March 27, Chipping Sparrow, (*Spizella domesticus*).
 March 28, Purple Martin, (*Progne subis*).
 March 30, Hermit Thrush, (*Hylorchila unalascae pallasi*).
 March 30, Grass Finch, (*Pooecetes gramineus*).
 March 30, White-crowned Sparrow, (*Zonotrichia leucophrys*).
 March 31, Cowbird, (*Molothrus ater*).
 April 3, Brown Thrasher, (*Harpornynchus rufus*).

April 6, Bank Swallow, (*Cotile riparia*).
 April 8, Great Blue Heron, (*Ardea herodias*).

These are the dates upon which the species were first observed, and indicate, in most cases, the time of arrival. While the first arrivals were seen on those dates, as a rule the species did not become common until a few days later.—B. W. Everman.

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE, (INCLUSIVE) 1883.

PART IV.

MAY 2. Two new arrivals that have come to stay are the Orchard Oriole, (*Icterus spurius*), and the Warbling Vireo, (*Vireo gilvus*.) Noted both in my apple orchard to-day. The former was a fine bird in its perfect or third year's plumage. According to Wilson the males of these birds undergo three changes of plumage according to age. The student can only become familiar with these by an examination of his, or similar, plates. The perfectly plumaged bird may readily be distinguished from the Baltimore Oriole in its practically two solid colors of black and chestnut—black above and chestnut below—blending into each other, thus wanting the orange markings of the latter. Their song, too, is quite different; the notes of the former are uttered with much more rapidity. Under date of April 18th, I remarked there was a remarkable resemblance between the songs of the Ruby-crowned Kinglet, the Warbling Vireo, and the Orchard Oriole, i. e., in the modulation of their notes and manner of utterance. Having on two different occasions heard the song of the first this season, and the songs of both of the others to-day, I repeat, the difference between them respectively is chiefly one of degree in the strength or volume of their notes, corresponding, it may be said, to the size of the birds, and I am surprised that ornithologists have never, to my knowledge, called attention to the fact. Indeed, I believe the birds themselves are sometimes deceived by each other's song. To-day I saw the Orchard Oriole twice fly into the same tree—after gutting the premises—immediately upon the Warbling Vireo resuming its song, and at once warbled out its louder notes, as if by way of imitation and rivalry, or a challenge to another of his kind. The Vireo's song is perhaps pitched on a little higher key. The Oriole has a habit of giving us but "snatches" of its full song, or, of abruptly cutting it off before completed. The Vireo rarely fails to finish its strain of melody.

The Warbling Vireo is clad in a sober dress of ashy green above and yellowish white below. It much resembles another of this genus, the Red-eye, but is smaller, and at least, can always be recognized by its song—its notes rapidly flowing into each, forming one continuous strain, while the notes of the Red-eye are more or less abrupt and jerky, and mostly slurred in twos or threes, with a brief pause between the slurred notes. A light line over the eye will serve to distinguish the latter bird.

MAY 3. An hour or two spent in my orchard this morning enabled me to note three more fresh arrivals. First, the Baltimore Oriole, (*Icterus galbula*.) Saw three or four males and one or two females at one time. Occasionally one of the former would burst out into full song, the notes of which I represented as follows: who' ee, hoi to hoi to

who's ée. This is its complete strain, consisting of eight notes uttered in pairs, which, however, it rarely gives us, having a habit of cutting it short, or uttering, in a languid manner, but one or two of these double notes at a time.

Another was the Great-crested Flycatcher, (*Myiarchus crinitus*.) This is about the size of our Catbird, with a brownish back and light yellow abdomen; is a summer resident here and builds its nest in hollows in trees.

The third was a Black and Yellow Warbler, (*Dendroica maculosa*.) This was altogether the most familiar little bird I ever met with; as it frequented the lower limbs I could readily approach to within a few feet of it, and once it directed its flight right towards me, and when within *twelve or fifteen inches of my head*, poised itself on wing for a moment as if no less curious to determine my identity than I was to determine his. This little warbler was a stranger to me, and to place the matter of its identity beyond a doubt, I was obliged to take its life. The upper parts are black, the lower yellow; breast and sides streaked with black spots; sides of head black, rump yellow.

MAY 4. Secured three specimens this morning in a neighboring wood, viz. the Blackburnian Warbler, (*Dendroica blackburniae*); the Black and White Creeping Warbler, (*Mniotilla varia*), and the Yellow-rumped Warbler, (*Dendroica coronata*)—my second specimen of the last. Also identified in my orchard the Blue Golden-winged Warbler, (*Helminthophaga chrysoptera*), and the Black and Yellow Warbler.

The Blackburnian Warbler is certainly one of the most beautiful of this beautiful family, with its finely contrasting colors of jetty black and brilliant orange about the head and neck, and handsomely marked black and white wings.

The Black and White Creeping Warbler, as its name implies, has something of the habits of the Creeper (and Nut-hatch) being mostly employed in running up and down and around the trunk and larger branches, searching for insects. This bird, above and below, is streaked with black and white, belly excepted, which is clear white; the wing is marked with two white bars.

The Golden-winged Warbler suffered a sufficiently close approach to enable me plainly to perceive every important characteristic feature without resorting to the gun in hand. These are the yellow-crown, black-throat, black patch through the eye bordered with white, and wide yellow stripe across the slate-colored wing. This little bird is not a pre-eminent vocalist, though the bird itself doubtless has a better opinion of its abilities. Was amused at its ambitious efforts in the warbling line. It would swell its throat, gap its mouth and cock its head as if it were going to fill the universe with its song, but the only notes that escaped it were tsee, tsee, tsee, and so faint as scarcely to reach my ear at a distance of ten feet.

The Black and Yellow Warbler I found the same familiar little creature as of yesterday, from which I infer this to be a characteristic of this species, as of the Kinglets.

Of the above, the Black and White Creeper remains with us during the summer, the others pass on to the north.

The first Scarlet Tanager, (*Pyranga rubra*), of the season could not escape my observation. This, doubtless, is the most "showy" bird in all our woods, and although much less abundant than many other species, has, because of the striking brilliancy of his dress, attracted the notice of every observer of birds, even the most indifferent, by whom it is commonly known as the "Black-winged Red-bird." Its scarlet dress, black wings and tail are its prominent distinguishing characters.

Also caught sight of the King-bird, (*Tyrannus carolinensis*), which everybody knows.

Also observed this evening a company of at least four White-throated Sparrows, (*Zonotrichia albicollis*), following the bushes along the roadside. These birds appear here regularly during the spring migrations, but generally leave us by the middle of this month. They are the largest and handsomest of the Sparrow family. The white throat and longitudinal white head lines will sufficiently identify them.

MAY 5. The Ruby-throated Hummingbird, (*Trochilus columbi*), and the Chimney Swallow or Swift, (*Chætura pelasgica*), are new names I can add to-day. The latter may be distinguished in air from the Swallow kind by its short tail, and the quick and slight vibrations of the wings.

Observed the Catbird and Summer Yellowbird nest building in my orchard.

Brief Notes.

CONNECTICUT WARBLER. Is it a settled fact that *Oporornis agilis* is as rare as it is said to be by many ornithologists of Massachusetts? Last spring I collected two and on the 17th (Saturday last) got two, the 19th one, and yesterday one. I found them all near one locality, and amongst a mixture of scrub oak and birches, in bottom land nearly surrounded by marsh. Those collected last spring were in ground of the same character. *W. W. Castle, Ashland, Mass., May 23.*

THE ROBIN has been a popular favorite for a period which must be reckoned by centuries, but it has been reserved for a modern naturalist to observe a domestic habit which, as far as we know, is unique. A pet robin built its nest over a pier-glass where the male and female birds brought into the world four young ones. "But now," as our correspondent truly says, "was the most curious occurrence. After a day or two, the parents of these little hopefuls introduced a third robin, who proceeded immediately to help the other two in their parental duties, even to instructing the little ones in their first infantile flight." It is impossible to discover whether this was some unfortunate, widowed by thoughtless boys of mate and nest, or whether it was an initiation of some youthful robin into the mysteries of baby-feeding, but, be that as it may, we can sympathize with Mr. Schultess-Young when he adds, "I would respectfully suggest that a systematic gentle study of the inner life of these beings who breathe with us the common air, may reveal natural depths of knowledge, of which the scientist in his merciless but barren search for the principle that directs this being can never dream." *The London Graphic.*

THE BALD EAGLE. I see in a letter from N. A. Eddy, of Bay City, Mich., that he was surprised to find the Bald Eagle so common in that locality. In the year 1879 I passed the summer on the Manitoulin Island, Lake Huron, Canada, where I met with large numbers of Bald Eagles, and I found several nests with young in them. In September I cut down a large pine stub with a nest on the top, but the birds being unable to fly, both were killed. I also found one or two Spruce Grouse, (*Tetrao canadensis*), also every species of duck known to fresh water. *D. A. K., Sturgis, Michigan.*

MONKEY FACED OWLS. The photograph of the "Monkey-faced Owls" in a recent number of the O. and O. calls to mind the fact that in the summer of 1882 a friend of mine told me of a "Monkey Owl" he had recently seen at Socorro, N. M., which was caught alive near that place. It was entirely different from anything I had, he said, and from his description I was at a loss to know what it was.

I attempted to obtain possession of it, but it had been sent to the Denver Exposition and I was unable to learn anything further in regard to it. Could it have been the same species as those described? *Charles H. Marsh, Silver City, New Mexico.*

GREAT NORTHERN DIVER OR LOON, (*Columbus torquatus*). A fine specimen was brought to me alive to be stuffed. It was captured in a somewhat curious manner on Lake Wauaramaug, Litchfield Co., Conn. Some fishermen observing him upon the lake, gave chase in a sail boat, and after some time they succeeded in coming up with him and taking him alive. He was brought to me from New Milford, a distance of nine miles, in the back end of an open buggy, untrammeled in any way, making no effort to escape. When taken from the wagon he gave utterance to two or three long, mournful cries, as if singing his own requiem. I could not discover that he was injured in any way, and am at a loss to account for his passive condition. *Geo. C. Jones, Brookfield Center, Conn.*

HISTORY OF A MAGPIE.—About the middle of June, 1880, I slightly wounded a young black-billed magpie. I brought him home and placed him in a cage, feeding him on fresh meat, which had to be cut in small pieces, and fed to him by hand.

In a short time he learned to pick a bone, but always preferred being fed in the former manner.

When he had eaten all he wanted, he had the habit of filling his throat full of meat and hiding it in the corners of his cage. He would do this as long as one would persist in feeding him.

We kept him in this manner until the Spring of 1881, when we let him out to forage for himself. When he had been loose for about a month and had finished his moult he was as fine a bird as one would wish to see. His wings and tail shone in rich purple, green and bronze.

He was a very knowing fellow, following one about everywhere. When weeding in the garden he would accompany me picking up insects and their larvae and pulling weeds himself.

He was a deadly enemy to all the Summer birds, pursuing the first blue-birds, and having scrimmages with the tame pigeons.

At that time I had some Red Polls in a cage, which I had captured during the Winter. He persisted in lighting upon the cage and trying to strike them, as they fluttered about.

In Summer he always roosted on top of the screen door under the porch. In Winter going into the barn and taking possession of the horse's back.

He would eat out of the same dish with the dogs and cats, very often driving them away by pulling their tails, or other cunning tricks which they did not know how to account for. He never would stand imposition from any body. As an example I may mention the following: One day a bare-footed boy came into the yard to look at him. During his inspection he picked up a stick and began to tease him. Pretty soon Jack began to scold in his peculiar manner and darted at the boy's bare-feet. That boy cleared the fence, the bird picking at him at every jump.

He had a particular tree near the pigeon boxes where he used to sit, chattering and whistling in his peculiar manner. The harder the wind blew the better he seemed to like it, and the louder he would whistle.

After a while he got into the habit of going into the hen-house and eating the eggs, but he was so sharp that it was a long time before we detected him in the act.

On this account we were obliged to give him away as cold weather was approaching and we did not wish to keep him in the house another Winter.

We did not hear of him again until the Summer of 1882, when he suddenly appeared while I was weeding onions, and commenced his old trick of pulling weeds, not without pulling the onions also, for which he received a cuff.

At this he flew away and we have never seen him since.

Poor Jack! he was a fine pet, but was always in some mischief, hiding anything that was laid where it would catch his eye.—*H. G. Smith, Jr., Denver, Colorado.*

ALBINO ROBIN. *Howard Buchane, Glasco, N. Y.*, writes: "To-day I saw an Albino-Robin. For three seasons back this same Robin, (I suppose it to be the same) has been with us." A lady friend recently mentioned to us that she had noticed when visiting at New London, Conn., an Albino Robin, which had an Albino mate—the latter not so white as the other. It would be very interesting to know whether their progeny show white feathers also.

GREAT GREY OWL. *E. S. Bowler, Bangor, Me.*, says he received from Katahdin Iron Works a perfect specimen. Length 25 $\frac{1}{2}$; wing 17 $\frac{1}{4}$; tail 12. Extent 55 inches.

SPOTTED ROBIN'S EGGS. I recently found a robin's nest containing four eggs. Each egg was spotted with fine, pale brown spots, some of the largest the size of a pin's head. I have been collecting nine years and have never seen any robin's eggs before that were spotted. *F. A. Lovejoy, Hollis, N. H.*

CORRESPONDENCE.

RED-TAILED HAWK. *(O. and O. IX. P 57), D. D. Stone, Oswego, N. Y.*, writes: "My experience differs from that of J. M. W. I have taken a good many sets of Red-tailed Hawks, and, except when the first set had been taken, have never found a set of two eggs that were at all advanced in incubation, and three has been the number with me, and in one case four." See Dr. Gibbs, p 67 of this number.

NEST TO BE IDENTIFIED. *Albert H. Hawley, Garden City, N. Y.*, writes: "While out after Crow's Eggs, we discovered a large nest about thirty feet from the ground. My friend went up and pronounced it an old crow's nest, but soon found an opening, and supposing it to be a squirrel's nest, he removed from the top a pile of leaves and bark, finding at the bottom a white egg about the size of a hen's, or a little smaller, and the same shape. It was fresh. The nest looked like an old Crow's, inhabited by Flying Squirrel's. Can any one tell me what it is?"

Moss Bird. *D. D. Stone*, asks: "Can you or some of the readers tell me the name of a small bird known, in the Carolinas and Ga., as the Moss Bird—a local name?"

LICE AMONG EGGS. "Hell-diver." *W. W. Gilman, Stoughton, Wis.*, asks: what is best to do when little brown lice get among eggs?" Naphtha would probably exterminate them. Blake's Cones we have found a good preventive. He also asks "the scientific name of what is commonly called the 'Hell-diver' round here."

NEW YORK LAWS AS TO BIRD COLLECTING. *S. H. Löonis, Geneva, N. Y.*, asks whether it is possible for him to obtain papers authorizing him to collect birds and eggs without being liable to the law." We are unable to add anything to the note in May O. and O. (p 62). Perhaps some N. Y. collector will give the information our correspondent asks for.

J. P. Loose, *College of St.-James, Md.*, sends us an account of his finding a nest of the Tufted Titmouse, (*Lophophanes bicolor*). We are sorry we cannot find room for his letter.

Notes from *Julius Hurter, Ira W. Shaw, A. M. Drummond, H. A. Talbot, and C. S. Phillips*.

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PAWTUCKET, R. I., JULY, 1884.

No. 7.

Migration in the Mississippi Valley.

49a	43.45	Wis.	La Crosse.	Charles H. Stoddard.
62a	38.45	Mo.	Mt. Carmel.	Mrs. M. Musick.
66a	40.20	Ia.	Keokuk.	Wm. E. Praeger.
67a	40.50	"	Burlington.	Prof. C. J. Reed.
76a	41.38	"	Iowa City.	J. W. Preston.
79a	42.01	"	Grand Junction.	Tenny Smith.
84a	42.55	"	Williamstown.	F. George.
87a	43.38	Minn.	Fairmont.	B. E. St. John,
166a	33.11	Tex.	Decatur.	Mrs. F. M. Houts.
113a	38.45	Kan.	Ellsworth.	James McMaster.
118a	40.21	Neb.	Davenport.	J. Nelson, Jr.
134	50.30	Man.	Oak Point.	A. T. Small.

Above will be found the names of observers that have been received since the publication of the map and list. The total number of observers to date is 151, representing thirteen States, two Territories and Manitoba. Unavoidable circumstances have absolutely forbidden the preparation of any article for this number, but we think we are safe in promising full notes for the rest of the year. There certainly is plenty of material to draw from. Let us take a short account of stock on hand. There have been received to date about 550 letters and there are about 100 yet to come. They will average not less than twenty notes to the letter, dozens of them running over fifty notes apiece, and one, from a lady, occupies sixteen foolscap pages and contains 174 observations. At twenty notes each we have a grand total of 13,000 items of interest in the life history of our birds which the observers of the Mississippi valley have recorded the past spring and summer. Were we to occupy every page of the O. and O. for the rest of the year, but a small part of the notes could be used, and much more than

half of the 425 species would have to be slighted, while our stock of letters, which now stands over three feet high, would not be greatly diminished. Nor has the work been all on the part of the observers. My letter-book contains the record, since the 1st of January, of 525 letters and postals, and of the distribution of 470 circulars.

The work so far has been the study of spring migration, but however extended and thorough this may be, our task is not completed until we have learned just as much of that more difficult subject, fall migration. Probably few of the observers, who for years have been noting spring arrivals, have ever made a fall note, and for this reason I make the following request:

I would like to have all of the observers pay some attention to the return and departure of the birds next fall; not for the sake of the notes that will be collected, but for the sake of the discipline. The conditions of the return movement are so different from those of the advance that few will be able to make a successful study of it upon first trial; but after one fall of apprenticeship the observers will be ready to do good work next year.

I should be glad to receive a copy of whatever notes are made, especially of the movements of those birds which spend the winter in the vicinity of the station; that is, I would like to have the birds traced to their winter homes and their habits studied all through the cold season.

Before fall migration begins more explicit directions will be issued.—*W. W. Cooke, Red Rock, Indian Territory.*

The Terns in Nova Scotia.

[FROM ADVANCE SHEETS OF "OUR BIRDS IN THEIR HAUNTS," BY J. H. LANGILLE.]

Outside of Mahone Bay on the south shore of Nova Scotia, are several islands of interest in respect to Ornithology. Flat Island, near Tancook, is a grand resort for several species of Terns. It comprises about a hundred acres, is clear of trees, and, as its name implies, is comparatively level. Ledges of slate crop out here and there, however, forming low ridges with marshy patches intervening. As one approaches the rocky shores, large numbers of Terns are seen scouring the surface of the water for food. Of all the birds of our northern seas, these are the most elegant and graceful. Mackerel Gulls, the fishermen call them, but, though nearly related, they are no Gulls at all. Bearing a resemblance in almost every point to these larger and more bulky birds, they are of a much more slender and delicate mould. Small and light-bodied, fork-tailed, with slender, pointed bill, long, pointed wings, and small, webbed feet, they are the very ideal of a swimming bird of flight. In no respect are they divers, but birds of the air which delight to sport on the surface of the waters. The soft silvery grey of the upper parts harmonize finely with the sea and sky; the lighter tint or white of the under parts, is pure as the snowy crests of foam, while the crowns of glossy black, and the bills and feet of coral-red are points of bright and pleasing contrast. What a powerful leverage in that ethereal element, the air, have those long pointed wings, raising the light body several inches at every stroke, and serving it as a well trimmed sail before the wind. How lightly this bird drops upon the water for its food of tiny fishes, too light and airy to dive out of sight, and often carrying its prey like a toy for some time, as if it fished for sport rather than from hunger. Occasionally a group of Terns will play

together with a little fish, one seizing it in the air as another drops it, and so passing it from bill to bill apparently for the mere sport of catching it. As the Tern flies low over the water, its downward pointing bill moving this way and that, it seems to be fishing in earnest; and again it gyrates high in the air, light, agile and airy as a swallow, and so suggests the propriety of one of its names—the Sea Swallow.

It is on their breeding grounds, however, that the Terns may be studied to the best advantage. As one lands on Flat Island, the air in every direction seems alive with them. They rise beyond gun-shot, the great mass interjecting their snow circles against the sky and the aggregations of their hoarse *ter-r-r-r-r-r*, *ter-r-r-r-r-r*, becoming almost deafening. As one approaches the resting places, which are here and there all over the island, some will drop down and hover noisily only a few yards above one's head. There it is that the pure underparts, the gracefully spread tail, the bright eyes, and the bills and feet of bright carmine, appear to the best advantage. In all their varying attitudes, this moving cloud of lithe and elegant creatures is a most pleasing and animating sight.

In this dense, moving mass, the species far the most numerous is the Arctic Tern (*Sterna macrura*). Length, 14.00–17.00; extent, 28.00–30.00; tail, 5.00–8.00; bill, 1.20–1.40; *tarsus*, .50–.67; this kind is a little more bulky than the Wilson. It is also generally distinguishable by its darker underparts and its bill of clear carmine, but is invariably so by its short *tarsus*—only a half inch or a little more. In winter, and during the second summers the fore-part of the crown is white, as also in the young of the year in its mottled plumage of grey and brown and which was once called the Portland Tern. The young have the bill and feet black and the underparts white even into the second summer. Habitat, Europe, Asia, Africa, North America generally, south to the Middle States, and

on the Pacific to California. Breeds from Massachusetts northward.

Next in numbers, but few in comparison with the former, as is also the case in all the breeding places of the Terns visited on the coast of the province is Wilson's or the Common Tern, (*Sterna hirundo*) Length, some 14.00; extent about 30.00; *tarsus*, .66-.87, and so noticeably larger than that of the Arctic. Except in the points noted, the two species are very similar, even to the voice. In habitat, however, the Wilson belongs to the whole Atlantic coast, breeding more or less throughout its range. In New England it breeds the most commonly of all its family. The black cap is retained during the winter, but is more or less imperfect in the young, which are beautifully mottled with grey and light brown, with more or less dusky on the wing-coverts and tail. As in the young of the former, the underparts are white, but the base of the bill and the feet are yellowish. I found this species breeding in large numbers on one of the Western Islands in Georgian Bay, and a few laying their eggs on the muskrat-houses on St. Clair Flats. I think they breed in the higher regions of the Great Lakes generally.

Among the flocks of Terns on Flat Island, I was not a little surprised to find a few of the Roseate Terns, (*Sterna paradisea*). From what I had learned in the books, I should have scarcely expected to find this species as far north as Portland, Maine. Even on the wing it was readily distinguishable from the rest of its kind. Some 12.00-16.00 in length, and so a little less than Wilson's Tern, its tail is at least an inch longer, and its entire form is more slender and graceful, so much so as to be noticeable even at a distance.

Other Terns appear almost clumsy in comparison with it. The bill is black except, perhaps, a slight patch of orange at the base below; the silvery curtain above is lighter and more exquisitely delicate even than in the rest of the Terns, the black cap

extends well down the nape, the feet are dark orange, and the underparts are whitetinted throughout, even including the tail coverts, with a delicate rose, the texture and the color of the plumage being such as scarcely to be rivalled by the most exquisite rose-tinted satin. The newly shot specimen is simply charming, but the brightness of the plumage is not retained after death. Indeed all the Terns seem to lose their highest beauty when cold, their extreme delicacy of color being consistent only with the warm glow of life. A bird is a highly specialized and beautiful object, especially the more chastely colored birds of the sea; but what on the whole Atlantic can equal the graceful form, bill and crown of ebony, back of burnished silver, hoary, dark-tipped wings and breast of blushing rose, of this Roseate Tern! The more gorgeous birds of the tropics compare with it, as the dahlia and the peony, with the rose and the water-nymph. In motion it is no less charming, its flight being peculiarly airy and dashing, the slender pointed wings and long forked tail being the most graceful possible.

The note of this Tern always advised me of its presence. I could not make out the "hew-it repeated at frequent intervals," but essentially the same ter-r-r-r-r, ter-r-r-r-r, as given by the other Terns, only on a lower key and in a rougher, hoarser tone, as if aspiring to a fine falsetto.

Muskeget Island, near Nantucket, seems to be the principal breeding place of this species.

I did not see Forster's Tern, (*Sterna forsteri*), in Nova Scotia. New England ornithologists testify to its rarity on their coast. Its place of breeding is believed to be in the upper regions of the Great Lakes. Only a few nest, like the Wilson's Tern, on the muskrat houses of St. Clair Flats. Mr. Maynard informs me that they breed in large numbers on Cobb's Island off the coast of Virginia. About the size and form of Wilson's Tern, this species seem to be

the counterpart of that, the underparts being pure white instead of drab and the tail silvery instead of white, the outer vanes of the long outer feathers white and the inner darker than the rest of the tail. In winter plumage it is distinguishable from the disappearing of the black crown except a black stripe on each side of the head. Its note is similar to that of the Common Tern but noticeably on a lower key.

The nesting of the four species of Terns above given is quite similar, and under certain circumstances quite variable.

Commonly the nest is a depression in the ground with a slight arrangement of dried grasses. If the nest is in the grass, it may be quite well built up; if on the shore, it may be only a slight hollow in the sand; or, fine pebbles on bits of slate may be circularly arranged after the manner of the Killdeer; or the egg or eggs may be laid directly on the green-sward. The complete number of eggs is most commonly two, often one, sometimes three. About 1.74×1.13 and regularly ovate, they are some shade of light green or light brown, variously specked, spotted, and blotched with dark brown and neutral, the markings predominating at the larger end.

In some breeding places near the southwest end of the province I could identify none but the Arctic Terns, and so could feel very well assured that I was examining nothing but Arctic Tern's nests, but where several of the above species of Terns breed in community, I do not see how the eggs and nests can be specifically determined—their similarity is so great, and the birds invariably leave the nests before one comes near them. From eggs well identified, I should think that possibly the ground color of the eggs of the Arctic tends rather to green, and that of the Wilson to brown. More than that I could not affirm as to any appreciable difference in the eggs of these two species.

A Trip to a Herony.

June 7, I visited, in company with a friend, a tract of land inhabited by Night Herons, in the southern part of Rhode Island. Even at that comparatively early date, most of the nests contained young birds, and those too, nearly full grown. As our visit was limited to the short space of an hour, we were content to obtain a few eggs and birds, and not to explore the whole place, which probably covered several acres of land. The entrance to the swamp was a narrow cow-path, on each side of which the briars were so closely interwoven that one was hardly able to penetrate.

As we came towards the herony, numerous cries of "quack," "quack," were heard, and the birds immediately left the nests and hovered over the place. On glancing at the trees within, we could see numerous nests, with young birds stretching their long necks over the sides. The trees mostly chosen were maples, and every tree contained from six to twelve nests. At the foot of the trees, egg shells, dead fish, and here and there dead birds were to be seen. The lower parts of the tree and the ground below, were covered with the incessant droppings, and the whole place seemed to have been whitewashed.

I first climbed one of the trees and soon was down with several sets of four eggs. We found this to be the usual number; often there were but three. A look at us two creatures on coming down from the trees would have made the most sober person laugh. I appeared to have been painted white from head to foot, while my companion was as bad. However, as we were "rigged out" for the occasion, we soon were used to the sight and smell. We obtained one beautiful specimen of a male Heron, and admired the neat plumage of this otherwise disgusting bird.

To give some idea as to the number of the nests and eggs, I would say that I

could frequently reach from one tree to another and take two or three sets of eggs. The young Herons were exceedingly vicious, and upon our appearing at the nests, they would dart their huge bills towards our faces and make queer noises.

Several Snowy Herons were seen but we could get no shot at them. Arriving home, on counting the eggs, my share came to just eighty, thirteen of which were sets of four, the rest sets of three and single eggs. A correct estimate of the number of the nests in the place could not be made, but it certainly went into the thousands.—*H. A. Talbot, Providence, R. I.*

Five Additions to the Avi-fauna of Michigan.

1. LONG-TAILED CHICKADEE, (*Parus atricapillus septentrionalis*).—Captured May 29, 1874. The plumage of this specimen was very much bleached and faded, the tail was a trifle less than three inches, the size of tarsus and foot excessively large for so small a bird. One specimen has been taken since the above date.

2. BROWN-HEADED NUTHATCH, (*Sitta pusilla*).—Taken May 12, 1875. This bird was sent in the flesh to Mr. W. H. Collins of Detroit, to be mounted, but on account of the warm weather, it spoiled before reaching him.

3. GRAY-HEADED SNOW BIRD, (*Junco cinereus caniceps*).—This bird was taken alive from a small bunch of Tory weeds, among the burrs of which it had become accidentally entangled. It was placed under a sieve in the chamber of my barn until I could give it better quarters, but while feeding it, the next morning, it succeeded in getting away from me.

4. WESTERN NONPAREIL, (*Cyanospiza versicolor*).—I shot this specimen, which proved to be a male in full plumage, May 18, 1874. At the request of Prof. Baird the mounted bird was sent to Mr. Ridgway, of the Smithsonian, for identification, who

wrote me as follows: "The specimen sent for examination is unquestionably *C. versicolor*." This is believed to be the first occurrence or capture of the Western Nonpareil within the limits of the United States. The specimen is in the collection of Prof. J. M. B. Sill, of Detroit.

5. GROUND DOVE, (*Chamæelia passerina*).—I met with a pair of Ground Doves in the township of Brighton, Livingston Co., in the summer of 1843. They were so tame that I walked up within 25 or 30 feet of them, where my opportunity to identify them was nearly as good as if I had them in my hand. I watched them for a long time, greatly pleased with their tender cooing notes and innocent ways.—*Dr. H. A. Atkins, Locke, Michigan.*

Among the Red-tails.

One of the commonest birds of prey to be found in Northern Illinois, is the Red-tailed Hawk (*Buteo borealis*.) A person will meet with them in all sorts of places, but they are most common in the vicinity of heavy timber. In driving through the country one will see them perched upon rail fences, trees by the wayside, sitting on the ground in stubble or pasture fields, or soaring over fields in search of their prey. When on one of his foraging expeditions the Red-tail, on sighting his prey, will remain at the same place in the air by a continual flapping of the wings, when at the proper time he will dive swiftly and silently upon it. Their food consists chiefly of small animals, the striped gopher and ground mole being his favorites. Small snakes are also very often eaten by them; indeed, during the months of July and August it is pretty hard to find one that does not contain one or more of these reptiles along with their other food. For several years I have tried in vain to procure some good sets of their eggs, but found I was almost always too late, as the eggs would be too far advanced in incubation or would be hatched.

This spring (1884) I determined to be on the war-path in time. Early in March, I had occasion to pass several times a week near a heavy timber, about four miles from town. My attention was often attracted by about a dozen Crows, near the edge of the timber, making a great outcry over something they evidently did not fancy. Thinking there might be a Great-horned Owl's nest in that timber, I visited it on March 21st, and discovered a very large nest in the forks of a Poplar tree, about sixty feet from the ground, on which a large Red-tail was seated, apparently taking the world easily in spite of the noise made by the clamorous Crows. Not having my climbing-irons, I was obliged to leave them until March 24th, when I took a beautiful set of two eggs. The ground color was a dull white, beautifully marked with obscure lilac and brick-red; one of them had a zone of brick-red blotches extending around the smaller end, and the rest of the surface was entirely covered with obscure lilac. The nest was a bulky affair, consisting chiefly of large sticks, some of which were two feet long and three-fourths of an inch thick. Being placed in the forks of a tree, they were obliged to build to a height of two feet before the nest was of the required diameter, which was about thirty inches. The cavity was about four inches, deep and was lined with corn husks, strips of bark, etc. This had the appearance of an entirely new nest. This pair of birds lingered around the nest for two weeks and then went half a mile north, amongst large white oaks, and commenced to build a second nest, which they completed in about ten days. April 22d, by the aid of climbing-irons, I secured the second set of three from a nest very similar to the first in a large white oak, forty-five feet from the ground. This set was blotched with obscure lilac like the first, the only difference in general markings being the lighter color, and the brick-red was

changed to a very light brown. After remaining near this nest for a week they went two miles southeast and commenced to build a third nest, and to avoid further depredations from mankind they placed this nest in an almost inaccessible place in a large Cottonwood tree, which stood in a pasture field, ten rods from the main body of the woods. The nest was very nearly completed when it was partially destroyed by a storm, but they immediately began to set to work to repair damages and in a short time had it ready for their third set. I was now pretty sure of securing the third set, but was doomed to disappointment; for on visiting the place, May 15th, I found the nest destroyed and one of the birds nailed to the tree with outstretched wings. I am sure these three nests were all built by the same birds; for one of them had several feathers missing from one wing, which afforded a sure mark. A few days after getting my first set, I was showing them to a young man attending my school, and he told me of a nest forty rods from his home, where he said a pair had reared their young for a number of years. His home being my boarding place for five days each week, I had a fine opportunity of observing them. On March 27th, they commenced repairing their nest, which was on a lofty Basswood tree, eighty feet from the ground on a steep hillside. One of the topmost branches had broken off and fallen across a horizontal one a short distance from where it forked and formed quite an extensive platform on which the nest was built. This, like the former nests, was built of large sticks and lined with bark, corn husks, etc. Having a good field telescope, I could see the movements of the birds very plainly from my window, and it was very interesting to watch their movements as they labored to get the nest in trim. Morning seemed to be their busiest part of the day. I am afraid if they knew my intentions they would have abandoned that particu-

lar part of the world entirely and gone to some place where egg collectors are as scarce as Red-tailed Hawks are in others. By April 3d, their work on the nest was done and after a very laborious climb April 7th, I was rewarded with a fine set of three eggs, pure white. I then visited a Cooper's Hawk's nest and returned half an hour later and found the female sitting on the empty nest. They visited the nest daily for several weeks and sometimes the female would sit for several hours upon it, but I am certain they did not lay again; for I climbed to it April 28th and found it empty. They have not built a second nest, but have remained very close to the old one up to this time (June 4th). At any hour of the day you can find both birds very close to the tree containing the nest. Will they use this nest again next spring? Time will tell. Another question: Why do they stay so close to their nest all this time without laying when the other pair were so persistent as to construct three different nests? On April 12th, I found two more nests, both of which were occupied by birds, and also another on April 19th, all of which were in places not to be reached without endangering life or limb. My time was very limited at this season of the year for collecting, or I doubtless could have taken more. May 26th, a friend who has been trying to raise them by hatching the eggs under a hen, sawed off a horizontal limb of an oak, forty-five feet from the ground, on which was placed a nest containing three young, about half grown. The young were all killed by the fall. Nests containing two young or two eggs are very rare in this locality. Three is the usual number, and in one instance I found four. A few years ago there was a poultry show here, and among other things on exhibition was a beautiful pair of these birds. A gentleman had brought them in from the country. On questioning him as to the mode of capture, he informed me

that he had taken them both in steel traps, by placing the trap on the ground in a meadow and partially covering it with grass and placing a piece of rabbit fur on top. He said on seeing it they would make a swoop and get caught. They appear very contented while in captivity and, if young, will soon take food from the hand. A gentleman near here has one in the same cage with a Bald Eagle and they are very contented. I am going to capture one this fall and put it in the cage with my Great-horned Owl to see how they will get along together. October and November are the best months to collect cabinet specimens, as the birds are then in their best plumage.—*Horace A. Kline, Polo, Ill.*

Black-throated Green Warbler.

June 14th, I found a nest of this species containing three young, less than a week old. The nest was ten feet from the ground, saddled upon a maple limb and held in place by several twigs, the leaves of which made a complete covering over it. Fine strips of birch bark, cobwebs, dry hemlock twigs, hairs, and fibrous barks, closely interwoven, formed the exterior, fine dry grass and fibrous barks, with an abundant lining of hair, the interior; the whole forming a neat and compact piece of bird architecture. Measurements, outside diameter, 3×2.75 inches; height 2 inches; inside diameter 1.75×1.50 inches; depth 1.55 inches.

When first disturbed the female bird fluttered from the nest, alighting on the ground almost at my feet, and remained so for several minutes, showing no signs of fear, but giving me an excellent opportunity of observing her.

Upon a subsequent visit, however, she was very shy and wary, retiring to the thick foliage, where she frequently uttered a "chip" not unlike that of the chipping sparrow. This Warbler occurs here commonly as a migrant, and rarely during the breeding season.—*C. O. T., Taftsville, Vt.*

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—AND—
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NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

The new series of our Magazine has now passed safely its first half-year, and we take the opportunity which this consideration suggests, to thank our contributors for the zeal and earnestness with which they have seconded the efforts of the Editor to sustain its position, and to carry out the objects it was designed to accomplish.

The Editor has been much encouraged by numerous testimonies from unexpected sources in appreciation of the Magazine, and desires to acknowledge in this manner many communications which it has been impossible to reply to more directly.

The Publisher also would add his acknowledgement of support, but regrets it must be accompanied by the announcement that the subscription list is not yet long enough to cover the year's expenses, which are heavier than were at first contemplated.

For some reason at present unknown to us the Smithsonian Check List cannot be obtained from the Institute. We hope another edition is being printed or will be shortly. There is a constant demand for

the work, which the Smithsonian authorities should find means to supply—at any rate "until its successor arrives."

Amongst the publications announced as soon to be issued is "Our Birds in their Haunts," by the Rev. J. H. Langille, of Buffalo. To judge from the extracts that have come under our observation, the work is written in a popular and entertaining style. It is also written "almost entirely from personal observation," a fact which must commend it to all seeking additional knowledge of our Birds.

International Ornithological Congress at Vienna.

Herr Tschusi sends us a copy of the resolutions at the Congress, of which we give a translation.

"The First International Ornithological Congress assembled at Vienna resolves:

1. To elect a standing International Committee for the appointment of Bird-observing stations, of which the Crown-Prince is asked to take the Protectorate.

2. To ask the Austro-Hungarian Government to make representations to all those countries not represented in this Congress with a view to their arranging for Ornithological Observation Stations, and to their notifying the President of this Committee of proper persons interested in the matter.

3. To request the delegates of the States here represented to suggest to their respective governments as follows:

a. The arrangement, so far as may be possible, of Ornithological Observation Stations.

b. The granting of money to carry on the business of the Stations and for the publication of the annual record of their observations of birds; also to appoint local committees in their various States to be under the general direction of the President of the International Committee.

4. To request the Committees to work after a common plan as follows;

a. The Ornithological observations will be spread over the entire inhabited globe, but in their first lines (*in erster linie*) will be attempted in Europe.

b. The observations will be made so far as possible on one plan, for which the Austro Hungarian and German will serve as a basis.

c. Upon this basis (see the German and Austro-Hungarian reports) the communications coming in from the different States are to be worked up and systematically arranged, if possible, with the same system of nomenclature, and always with the same scientific names.

d. A check list of the native Birds of each country is to be kept after the plan of that made for Austro-Hungary by E. von Homeyer and von Tschusi—the particular local names being added.

e. Every effort should be made to enlist the interest in the observations of Academies, Natural History Museums, Societies, etc.; also Consulates, Catholic and Protestant Missions, Meteorological Stations, Journals of Natural Science, Teachers, Foresters, Inspectors of Lighthouses, etc.

f. If skilful observers are at hand, drawings should be made of all species of birds. Where this cannot be done, it is to be left to the discretion of the committees to name some species well known to all friends of nature, for special examination.

g. It would be desirable at the same time to note anything unusual in the Animal and Vegetable Kingdoms; also the Meteorological phenomena.

5. In the International Committee each country is to be represented by one or more delegates, according to its size and importance. The Committee has the right to appoint representatives to serve for those countries not represented in this Congress."

List of Birds

COLLECTED IN THE NEIGHBORHOOD OF ST. LOUIS, MO., BY
JULIUS HURTER, 2,346 S. 10th STREET, ST. LOUIS.

The extent of observations and collections takes in a circle with a radius of eight to ten miles from the court house of St. Louis as a centre. Thinking that it would be entirely wrong to make a political barrier for our birds, I extended my observations also to the opposite side of the Mississippi river into Illinois, as there is a real paradise of water birds.

The nest was found of those birds that are marked*

- 1* *Hylorchila mustelina*, (Gmel.) Baird. Wood Thrush. Summer resident; common.
- 2 *H. fuscocinerea*, (Steph.) Baird. Wilson's Thrush. Migratory; rare. May 3.
- 3 *H. alicia*, Baird. Gray-cheeked Thrush. Migratory; rare.
- 4 *H. ustulata swainsoni*, (Caban.) Ridgw. Olive-backed Thrush. Migratory; May 17.
- 5 *H. unalascae pallasi*, (Caban.) Ridgw. Hermit Thrush. Migratory Spring and Fall; abundant.
- 6* *Merula migratoria*, (Linn.) Sw. & Rich. American Robin. Summer resident; common.
- 7* *Mimus polyglottos*, (Linn.) Boie. Mockingbird. Summer resident; abundant.
- 8* *Galeoscoptes carolinensis*, (Linn.) Caban. Catbird. Summer resident; common.
- 9* *Harporhynchus rufus*, (Linn.) Caban. Brown Thrasher. Summer resident; abundant.
- 10* *Sialia sialis*, (Linn.) Haldem. Bluebird. Summer resident; abundant.
- 11* *Poliopitta caerulea*, (Linn.) Scl. Blue-gray Gnatcatcher. Summer resident; abundant.
- 12 *Regulus calendula*, (Linn.) Licht. Ruby-crowned Kinglet. Migrant, April and Oct.; abundant.
- 13 *R. satrapa*, Licht. Golden-crowned Kinglet. Migratory, Spring and Fall. Abundant.
- 14* *Lophophanes bicolor*, (Linn.) Bp. Tufted Titmouse. Resident and common.
- 15* *Parus atricapillus*, (Linn.) Black-capped Chickadee. Resident; not quite as common.
- 16 *P. carolinensis*, Aud. Carolina Chickadee.
- 17* *Sitta carolinensis*, (Gmel.) White-bellied Nuthatch. Common; resident.
- 18 *S. canadensis*, Linn. Red-bellied Nuthatch. Migratory; rare; Sept. 11.
- 19 *Certhia familiaris rufa*, (Bartr.) Ridgw. Brown Creeper. Transient; Jan. 16.
- 20* *Thryothorus ludovicianus*, (Gm.) Bp. Carolina Wren. Resident; not uncommon.
- 21* *Thryomanes bewickii*, (Aud.) Baird. Bewick's Wren. Summer sojourner; March 27.
- 22* *Troglodytes aedon*, (Vieill.) House Wren. Summer sojourner; abundant.
- 23 *Anorthurus troglodytes hyemalis*, (Vieill.) Coues. Winter Wren. Transient; Oct. 5, Feb. 7.
- 24 *Telmatodryas palustris*, (Wils.) Baird. Long-billed Marsh Wren. Migratory; common in suitable places Sept. 21.
- 25 *Cistothorus stellaris*, (Licht.) Caban. Short-billed Marsh Wren. Migratory; not as common as the preceding one; Sept. 21, April 27.

- 26 *Anthus ludovicianus*, (Gm.) Licht. American Tit Lark. Migratory; Oct. 23; a flock of about thirty remained for three weeks.
- 27* *Mniotilla varia*, (Linn.) Vieill. Black and White Creeper. Summer sojourner.
- 28* *Protonotaria citrea*, (Bodd.) Baird. Prothonotary Warbler. Summer sojourner; abundant; April 27.
- 29* *Helminthotherus vermicivorus*, (Gmel.) Salv. & Godm. Worm-eating Warbler. Summer sojourner; rare.
- 30* *Helminthophaga pinus*, (Linn.) Baird. Blue-winged Yellow Warbler. Summer sojourner.
- 31 *H. chrysoptera*, (Linn.) Baird. Golden-winged Warbler. Summer sojourner; May 6.
- 32 *H. ruficapilla*, (Wils.) Baird. Nashville Warbler. Transient; May 2; Sept. 15.
- 33 *H. celata*, (Say.) Baird. Orange-crowned Warbler. Transient; rare; April 20.
- 34 *H. peregrina*, (Wils.) Baird. Tennessee Warbler. Transient; the most common of the Helminthophagæ; May 10, Sept. 24.
- 35 *Parula americana*, (Linn.) Bp. Blue Yellow-backed Warbler; Summer sojourner, April 14.
- 36 *Perissoglossa tigrina*, (Gmel.) Baird. Cape May Warbler. Transient; rare; May 2.
- 37* *Dendroica aestiva*, (Gmel.) Baird. Summer Yellow Bird. Abundant.
- 38 *D. cerulea*, (Linn.) Baird. Black-throated Blue Warbler. Transient; rare; Sept. 24.
- 39 *D. coronata*, (Linn.) Gray Yellow-rump Warbler. Migratory; abundant.
- 40 *D. maculosa*, (Gmel.) Baird. Black and Yellow Warbler. Migratory; May 3-15.
- 41 *D. caerulea*, (Wils.) Baird. Cerulean Warbler. Summer sojourner.
- 42 *D. pensylvanica*, (Linn.) Baird. Chestnut-sided Warbler. Transient; May 10, Sept. 13.
- 43 *D. castanea*, (Wils.) Baird. Bay-breasted Warbler. Transient; May 11.
- 44 *D. striata*, (Forst.) Baird. Black-poll Warbler. Transient; May 5.
- 45 *D. blackburniae*, (Gm.) Baird. Blackburnian Warbler. Transient; May 16, Sept. 13.
- 46 *D. dominica*, (Linn.) Baird. Yellow-throated Warbler. Transient; rare; April 24.
- 47 *D. virens*, (Gmel.) Baird. Black-throated Green Warbler. Transient; May 16, Oct. 5.
- 48 *D. pinus*, (Wils.) Baird. Pine-creeping Warbler. April 30.
- 49 *D. palmarum*, (Gmel.) Baird. Red-poll Warbler. Transient. April 23.
- 50* *D. discolor*, (Vieill.) Baird. Prairie Warbler. Summer sojourner.
- 51* *Sturnus auricapillus*, (Linn.) Swains. Golden-crowned Thrush. Summer sojourner.
- 52 *S. nœvius*, (Bodd.) Coues. Small-billed Water Thrush. Transient; May 17.
- 53* *S. motacilla*, (Vieill.) Coues. Large-billed Water Thrush. Summer sojourner; April 17.
- 54 *Oporornis agilis*, (Wils.) Baird. Connecticut Warbler. Transient; May 23.
- 55* *O. formosa*, (Wils.) Baird. Kentucky Warbler. Summer sojourner; May 14; abundant.
- 56 *Geothlypis philadelphica*, (Wils.) Baird. Mourning Warbler. Transient; May 19; rare.
- 57* *G. trichas*, (Linn.) Caban. Maryland Yellow-throat. Summer sojourner; April 27; abundant.
- 58* *Icteria virens*, (Linn.) Baird. Yellow-breasted Chat. Summer sojourner; April 28.
- 59* *Myioicticus mitratus*, (Gmel.) Aud. Hooded Warbler. Summer sojourner.
- 60 *M. pusillus*, (Wils.) Bp. Black-capped Yellow Warbler. Transient; May 9, Sept. 6.
- 61 *M. canadensis*, (Linn.) Aud. Canadian Fly-catching Warbler. Transient; May 10, Sept. 3.
- 62* *Setophaga ruticilla*, (Linn.) Swains. Am. Redstart. Summer sojourner; May 1.
- 63* *Vireo olivaceus*, (Linn.) Bp. Red-eyed Vireo. Summer sojourner; abundant; April 28.
- 64 *V. philadelphica*, Cass. Philadelphia Vireo. Transient; rare; May 22.
- 65 *V. gilva*, (Vieill.) Cass. Warbling Vireo. Summer sojourner; May 12.
- 66 *Laniocera flavifrons*, (Vieill.) Baird. Yellow-throated Vireo. Summer sojourner.
- 67 *L. solitarius*, (Vieill.) Baird. Blue-headed Vireo. Transient; April 30.
- 68* *Vireo neovaracensis*, (Gmel.) Bp. White-eyed Vireo. Summer sojourner; May 10.
- 69* *V. bellii*, Aud. Bell's Vireo. Summer sojourner; May 1.
- 70 *Lanius borealis*, Vieill. Great Northern Shrike. Winter visitor; rare; Jan. 3.
- 71* *L. ludovicianus*, Linn. Loggerhead Shrike. Summer resident; abundant.
- 72 *Ampelis cedrorum*, (Vieill.) Baird. Cedar Wax-wing. Resident; Feb. 3.
- 73* *Progne subis*, (Linn.) Baird. Purple Martin. Summer sojourner; March 30.
- 74* *Petrochelidon lunifrons*, (Say) Lawr. Cliff Swallow. Summer sojourner; April 14.
- 75* *Hirundo erythrogaster*, Bodd. Barn Swallow. Summer sojourner; April 15.
- 76* *Tachycineta bicolor*, (Vieill.) Caban. White-bellied Swallow. Summer sojourner; April 16.
- 77* *Cotile riparia*, (Linn.) Boie. Bank Swallow. Summer sojourner; May 1.
- 78* *Stelgidopteryx serripennis*, (Aud.) Baird. Rough-winged Swallow. Summer sojourner; April 15.
- 79* *Pyranga rubra*, (Linn.) Vieill. Scarlet Tanager. Summer sojourner; April 30.
- 80* *P. aestiva*, (Linn.) Vieill. Summer Redbird. Summer sojourner; April 30.
- 81 *Carpodacus purpureus*, (Gm.) Baird. Purple Finch. Winter visitor; Oct. 28.
- 82 *Aegithothis linaria*, (Linn.) Caban. Common Redpoll. Winter Visitor; rare; Feb. 12.
- 83* *Astragalinus tristis*, (Linn.) Cab. Am. Goldfinch. Summer resident; a few seen in Winter; common.
- 84 *Chrysomitrus pinus*, (Wils.) Bp. Pine Goldfinch. Winter visitor; rare; Oct. 28.
- 85 *Centrophanes lapponicus*, (Linn.) Caban. Lapland Longspur. Winter visitor; abundant; Dec. 20, March 9.
- 86 *C. pictus*, (Swains.) Caban. Smith's Longspur. Migratory; rare; May 8.
- 87 *Pooecetes gramineus*, (Gm.) Baird. Grass Finch. Summer sojourner; not common; April 12.
- 88 *Passerculus sandwichensis savanna*, (Wils.) Ridgw. Savannah Sparrow. April 25; rare; transient.
- 89 *Coturniculus passerinus*, (Wils.) Bp. Yellow-winged Sparrow. Not often seen; April 26; Summer sojourner.
- 90 *Ammodromus caudatus*, (Gm.) Swains. Sharp-tailed Finch. Nov. 10; Winter visitor; only once met.
- 91* *Chondestes grammica*, (Say) Bp. Lark Finch. Summer sojourner; abundant; April 15.
- 92 *Zonotrichia leucophrys*, (Forst.) Swains. White-crowned Sparrow. Winter sojourner.
- 93 *Z. albicollis*, (Gm.) Bp. White-throated Sparrow. Winter sojourner; common.

- 94 *Spizella montana*, (Forst.) Ridgw. Tree Sparrow. Winter visitor; common.
- 95* *S. domesticus*, (Bartr.) Coues. Chipping Sparrow. Summer sojourner; April 12; common.
- 96 *S. pallida*, (Sw.) Bp. Clay-colored Sparrow. Migratory; April 28, Sept. 24; rare.
- 97* *S. pusilla*, (Wils.) Bp. Field Sparrow. Summer sojourner; abundant.
- 98 *Junco hyemalis*, (Linn.) ScI. Black Snowbird. Winter visitor; very common.
- 99 *Melospiza fasciata*, (Gmel.) Scott. Song Sparrow. Winter visitor.
- 100 *M. palustris*, (Wils.) Baird. Swamp Sparrow. Winter and transient visitor.
- 101 *M. lincolni*, (Aud.) Baird. Lincoln's Finch. Rare; May 3.
- 102 *Passerella iliaca*, (Merrem) Sw. Fox-colored Sparrow. Transient; Feb. 14.
- 103* *Pipilo erythrorththalmus*, (Linn.) Vieill. Chewink. Summer resident; some remain over winter.
- 104* *Cardinalis virginianus*, (Briss.) Bp. Cardinal Grosbeak. Resident; abundant.
- 105* *Zamelodia ludoviciana*, (Linn.) Coues. Rose-breasted Grosbeak. Summer sojourner.
- 106 *Passerina cyanea*, (Linn.) Gray. Indigo Bunting. Summer sojourner; April 25.
- 107* *Spiza americana*, (Gm.) Bp. Black-throated Bunting. Summer sojourner. Abundant.
- 108 *Dolichonyx oryzivorus*, (Linn.) Sw. Bobolink. Transient; May 2 to 10.
- 109* *Mo'othrus ater*, (Bodd.) Gray. Cowbird. Summer sojourner; March 1.
- 110 *Xanthocephalus icterocephalus*, (Bonap.) Bd. Yellow headed Blackbird. Transient; rare; May 4.
- 111* *Agelaius phoeniceus*, (Linn.) Vieill. Red-and-buff-shouldered Blackbird. Common; summer sojourner.
- 112* *Sturnella magna*, (Linn.) Sw. Meadow Lark. Summer sojourner.
- 113* *Icterus spurius*, (Linn.) Bp. Orchard Oriole. Summer sojourner.
- 115 *Scoleophaeus ferrugineus*, (Gm.) Sw. Rusty Blackbird. Transient; winter.
- 116* *Quiscalus purpureo-crenatus*, (Ridgw.) Bronzed Grackle. Summer sojourner; abundant.
- 117* *Corvus frugilegus*, (Bartr.) Common Crow. Resident.
- 118* *Cyanocitta cristata*, (Linn.) Strickl. Blue Jay. Resident.
- 119* *Eremophila alpestris*, (Forst.) Boie. Shore Lark. Resident.
- 120* *Tyrannus carolinensis*, (Linn.) Temm. Kingbird. Summer sojourner; April 24.

[To be Continued.]

Californian Bewick's Wren.

(*Thryomanes bewickii spilurus*.)

On April 28th a nest of four eggs was taken, with the raspberry basket it was in. It was placed in one of the drawers, that are used to hold the baskets, and on the top of a fruit chest they are shipped in, about eleven feet from doors opening on the street. Mrs. Bewick made her nest in the open basket, laid her eggs, and went to sitting, as unconcerned at the people passing in and out every day, and the cat hunt-

ing around for mice, as though she was in one of the safest brush heaps on the creek. The size of basket is $4 \times 3\frac{1}{2}$ inches, 2 in depth, and square shaped. Nest composed of a lot of straws in the bottom, then a thick layer of wool, cow's hair, cat's fur, and a few spider's nests put in here and there. Nest is lined with black and white horse hair, with a lot of chickens feathers, depth inside of nest $1\frac{3}{4}$, across top $2 \times 2\frac{1}{2}$. The eggs were about seven days incubated, three of them measure 0.67×0.50 , the other a trifle larger in breadth 0.67×0.55 , color of eggs, a pearly white, marked with fine specks of a dull red or cinnamon color, forming a ring around the larger end; a few dots are sprinkled all over the egg, and shell markings can be seen of a light neutral tint underlying the red.

After the nest had been taken, they came up to the house, and took up quarters behind the lattice of the front porch, where they commenced to build their second nest with a lot of dead leaves, some weed stems and fine rootlets. On these the walls were put up of fine grass and spider's nests, lined thick with cat's fur, bits of cotton, a few horse hairs, several feathers from the wing of a Red-shafted Flicker, chicken's feathers, and a piece of snake skin, put in perhaps as a kind of charm, though I have always found the same in all of the Western house Wren's nests. The first egg was laid May 7th, then they left for some reason, perhaps on account of a litter of kittens the cat had under there. I noticed the Wrens scolding away at the cat, as she came out, though they took no notice of her when she was around the barn. A few days after their leaving this nest, I found a pair had started nest building in a wood-pile, not four feet from the back kitchen window. I doubt if this was the same pair. They had taken in a lot of dry weeds, leaves and grass and commenced the lining of cotton and feathers; then gave it up. On May 20th, while on the creek under a bridge, I saw a Bewick's Wren go into a bunch of young

maple sprouts, growing out of the side of the tree, as it leaned against the outside stringer of the bridge almost on a level with the road running on the bridge. After the wren flew out I went up, parted the sprouts and leaves, and found the nest in a kind of hollow formed in the tree. In a very small space were a few skeleton leaves, rootlets and grass, lined with spider's nests, rabbit's fur, a few horse hairs and chicken's feathers, with a piece of gopher snake skin. The whole nest would lie on my hand. I found three eggs in it on the 12th of May, and on going to it on the 20th, took out seven fresh eggs, which are now before me. They are not so heavily marked as the set of four, being much lighter, one hardly at all—merely pin points; two of them measure 0.67x0.52, one 0.67x0.50, two 0.62x50, two 0.50x0.40. I have seen full fledged young flying by May 1st. A nest was brought me two years ago that had been built on a cross-sill in a summer kitchen, where the people were at work all day. Unfortunately the eggs were all broken before the nest reached me. It was made almost wholly of chicken's feathers and human hair. This jovial little songster is with us all the year round.—*W. Otto Emerson, Haywards, Cal.*

Mr. Emerson sends us a very beautiful drawing of the nest first mentioned.—ED.

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE,
(INCLUSIVE) 1883.

PART V.

MAY 7. Secured specimens, one of each, of the following Warblers: Black-throated Green, (*Dendroica Virens*), Blue Yellow-backed, (*Parula Americana*), Yellow-rumped,—my third specimen, a female, and a Nashville, (*Helminthophaga ruficapilla*).

The Black-throated Green has the back, hind head and crown yellowish green, and the throat black; the sides of the head are yellow, and the wing is blackish and crossed with two heavy bars of white.

The Blue Yellow-backed is one of the smallest of this family of small birds and one of the most beautiful. The whole upper parts are a Prussian blue except a spot in the middle of the back which is yellow; the wings are black and crossed with two bars of white; the throat and breast are rich yellow and orange with a curved line of black near

the jugulum. These two, with the Yellow-rump, I took in high woodland. The Nashville I shot in my orchard. For two or three days past had seen the last named very active little bird gleaning among the apple blossoms without being able to fully identify it. The upper parts are greenish yellow; the top and sides of the head ash; crown marked with slight touches of chestnut; the whole under parts yellow. The superficial observer might readily mistake this bird for the Summer Yellow-bird. All of the above are *en route*—so far as known, never stopping here to breed.

Noted the first Wood Pewit Flycatcher, (*Contopus virens*), of the season. This bird, which much resembles the Phoebe, frequents the wood lands and builds its nest in trees, and may, at least, be recognized by its plaintive, long-drawn-out note of *pe-to-wee*, with sometimes a rising and sometimes a falling inflection on the last syllable.

Saw seven or eight Scarlet Tanagers, both male and female, all within limited bounds. One or two of the former repeatedly, as I observed them, warbled out a strain of song, consisting of four or five double slurred notes, not unlike that of the Robin, but not, however, nearly so mellow or musical. The Baltimore Orioles, since their first appearance three or four days ago, have become remarkably abundant. The Wood Thrushes are very generally dispersed throughout all our woods.

MAY 8. My Warbler game this morning included a female Blackburnian, a Nashville, a Black-and-White Creeper and a Yellow-rump; no new specimens. Every one of my four little shooting excursions has included the last named species, from which I infer it is among the most numerous of our Warblers, at least during the Spring migrations. My gun, strangely enough, failed to bring down several rare (?) and interesting (?) specimens.

Wherever there was a briar patch near to the border of a wood I was almost sure to meet with the Maryland Yellow-throat, (*Geothlypis trichas*). This little bird never fails to capture the affections of every one who makes his acquaintance—being modest in manner, confiding in spirit, tidy in dress and sprightly in song. His olive-green dress, bright yellow throat, and jet black stripe through the eye, reaching from one side of the face to the other, are enough to identify him.

The little Field Sparrow, (*Spizella agrestis*), which is commonly with us the first week in April, but whose arrival I unwittingly failed to note, is very liberally distributed throughout all our upland pasture fields, singing his sweet little ditty, so easily distinguished from the song of all the other Sparrows. This bird's unmarked under parts and whitish wing-bars and reddish bill will enable one to separate it from other Sparrows that frequent the fields.

Started a female Towhee Bunting from her nest almost at my feet. This was near the edge of a wood, among the grass, about ten feet from the foot of a tree, and unmarked by stump, stone or shrub. It was sunk below the surface of the ground, and consisted of two layers of different materials, the first or outside being dead leaves, the second or inside dried grasses, and the whole was partially covered over with green or dried grass stems. It contained four eggs—two of the owner's and two of the Cowbird's.

The following species not heretofore named, came under my observation: The Eave's Swallow, (*Petrochelidon lunifrons*); the Red-eyed Vireo, (*Vireo olivaceus*); the Indigo bird, (*Passerina cyanea*), and the American Titlark, (*Anthus ludovicianus*).

The Indigo-bird is about the size of a Sparrow, and of a general bluish color, with blackish wings and tail. It frequents the borders of woods, also the roadside, perching on fences.

Of the Titlarks, saw three or four in one company along

the roadside. This bird is but little larger than a Sparrow; the upper parts are dusky brown, lower faint yellowish brown, breast spotted with black. It always walks or runs but never hops. This is but a Spring passenger through this district to the far north.

MAY 12. My observations to-day included that elegant and rare bird, the Rose-breasted Grosbeak, (*Zamelodia luvociana*). Several days since I suspected seeing this bird but only to-day was enabled to satisfy myself as to its identity. Met with two or three males and a female, all in a small timbered and watered ravine. For a full hour I spent in this locality, one of these birds never ceased to pour out its voice in melody, only pausing long enough to fly from one tree-top to another, often taking up its position in a tree standing out in the open field. I was specially pleased with its song, and if this be a specimen singer, do not hesitate to rank this bird among the most delightful and accomplished songsters in all our woods. The whole head and upper parts are black, save a white spot on the rump and another on the wing; the lower parts are white: a patch of beautiful rose color on the breast is a prominent characteristic. It is but a few years since these birds first made their appearance in this district, but every year seem to be growing more numerous.

Discovered the nests of the Brown Thrasher and the Cardinal Grosbeak. The former was located in a thorn-bush on the steep hill-side of a pasture field near to a wood. It was an extremely homely piece of bird fabric, consisting for the most part of coarse dead sticks of a uniform sooty-black color, with a few dried grasses for a lining. It contained three speckled eggs. The female seemed to be brooding, and only left the nest when within arm's reach.

The nest of the Cardinal was built in a crab-apple tree, in a sheltered hollow, six feet from the ground, and was composed of dried weed stalks and grasses—fine fibres of the latter forming the lining—the whole rather loosely put together. It contained two freshly laid eggs, one of which I suspected of being the Cow bird's.

MAY 16. An hour's shooting at sunrise resulted in the capture of the following: A Red-eyed Vireo (the victim of mistaken identity), a Golden-crowned Thrush, (*Sturnus auricapillus*), a Yellow-bellied Flycatcher, (*Empidonax flaviventris*), a Chestnut-sided Warbler, (*Dendroica pennsylvanica*), and two Black-throated Blue Warblers, (*Dendroica caerulea*),—a male and a female.

The Golden-crown Thrush was perched on a small sapling, about ten feet from the ground, uttering a series of animated and monotonous chirps which may be represented by the syllables, *chippy, chippy, chippy, &c.* This bird is credited with remarkable capabilities as a songster, but its song is about as rare as the flower of the century plant. In a hundred years, so far as I can understand, it has been given to but one man to hear it. The following will serve to identify it: In size it is no larger than the average sparrow; the whole upper parts are a beautiful olive-green; the lower parts are snow white; the breast is thickly spotted with black; the head on the top is marked by two black stripes, between which is a bed of golden yellow. It builds an oven-shaped nest on the ground, hence the name of Oven-bird, which is sometimes given it.

The Yellow-bellied Flycatcher I shot in a thicket of crab-apple trees and thorn bushes. This bird is olive-green above and pure yellow below, with two yellow wing bars. The uniform clear yellow under parts, and the more conspicuous wing-bars will distinguish the species from several others of nearly the same size and markings.

The Chestnut-sided Warbler wears a motley-colored dress; the upper parts are marked with black, yellow and gray; below the wing is a line of chestnut, and the rest of

the under parts are white; there is a patch of yellow on the top of the head. This bird I secured in a crab-apple thicket.

The two Black-throated Blue Warblers I shot in different localities in high woodland. The male is a handsome bird of a uniform slate-blue above, and pure white below; the sides of the head and the whole throat are jet black. I had no little difficulty in identifying the female of this species, so strangely different from the male in coloring and markings. The white spot on the wing at the base of the primaries, common to both sexes, was the one clue to lead me to its full recognition.

Started up a Whip-poor-will, (*Antrostomus vociferus*) almost at my feet, and without trouble found its pair of eggs on which it was brooding. This was a "rare find"—one which but rarely happens, even to the most industrious nest-hunters, and those eggs would fill a "long felt want" in my cabinet. It is well known that this bird makes no nest, but lays its eggs on the ground in woodland; in this instance they were placed on a broad leaf with the least perceptible depression towards the centre—enough to hold them in place.

MAY 17. My apple orchard this morning seemed to be a general rendezvous of the Warblers. At no time and no where have I seen them so numerous and in such variety in the same bounds. Among others identified the Nashville, the Black and yellow, the Chestnut-side, the Yellow-wing and the Green Black-capped Warbler, (*Wilsonia pusilla*). Took a beautiful specimen of the latter. Wilson says this bird has no song; others pass it over. Let justice be done. This, as well as the Chestnut-side, with which it seems to be associated during the morning, has each its own strain of song as characteristic and well defined, and, at least, as sharp and energetic as that of the Summer Yellow-bird, so familiar to all, that of the Black-cap being more prolonged than either of the others. Had the opportunity of hearing the musical performances of different individuals of each of the above species. During the hour or two they remained they kept up a continual twittering and chattering and warbling, their united voices forming a most interesting and, to my ear, most pleasing medley of bird-song. The Black-cap is another "Yellow-bird" but may be readily distinguished by its uniform Yellowish dress (tinged with green above) and the glossy black patch covering the whole top of the head.

Brief Notes.

QUESTIONS ANSWERED. NEST TO BE IDENTIFIED. HELL DIVER.—The solution to Albert H. Hawley's question in the O. and O. for June is easily given. If the measurements of the egg had been noted the exact bird might have been told, but as it is, there is little doubt of its being an owl's egg. All owls lay white eggs, nearly oval, varying in size according to the bird. Several of our nocturnal Rapacious nest in old Crow's or Hawk's nests. This is very commonly the case with the Great-horned Owl, (*Bubo virginianus*), the Long-eared Owl, (*Otus vulgaris*), and occasionally the Barn Owl, (*Syrnium nebulosum*). In the find of Mr. Hawley, the owl laid an egg, and before returning to deposit the second egg, a pair of squirrels appropriated the nest to raise their young, and arched it over with sticks and leaves, thus excluding the former occupant. Squirrels very commonly roof over old nests which affords a protection for their young from cold, storms, and from being devoured by birds of prey. If the egg found by Mr. H. is considerably oblong, there is a possibility of its belonging to a Hawk. I have a clutch of four eggs of the Red-shouldered Hawk, (*Buteo lineatus*), in which are two white, or rather cream-colored eggs, and two blotched ones.

W. W. Gilman asks, June O. and O. "the scientific name of what is called the Hell-diver round here." In this section that name is given to the *Dabchick*—*Bodilymbus podiceps*—*Linn.* *Podiceps carolinensis*—*Lath.*—*Wm. Wood, East Windsor Hill, Conn.*

DUCK HAWK'S NEST.—*S. W. Comstock, Greenfield, Mass.*, sends us a graphic description of two visits by members of the Greenfield Natural History Society to Mt. Sugarloaf, when they were fortunate enough to secure two sets of Eggs of the Duck Hawk. He says:

"This site has been used many years by the Hawks, two nests of young having been taken, and one of two eggs besides those of ours, and all but one have been taken from the same shelf. This shelf was a slightly curved rock, slanting downwards, with but a few feathers and nothing else.

The eggs, two in number, were of a reddish brown color with finely spattered spots of darker shades of the same.

The only places in Massachusetts to my knowledge, where these hawks breed, are Mt. Tom, Mt. Holyoke, and Mt. Sugarloaf. In Connecticut, only Taicot Mountain."

NEST OF THE SWALLOW-TAIL KITE.—Some years since I was informed that Swallow-tailed Kites nested on Indian Creek in the lower cross-timbers, about seven miles east of Gainsville, Texas.

During a recent visit (June 2d) to a friend in that locality, I was informed where I could see a nest which had been occupied this season. It was in the extreme top of a large Cottonwood tree, the stem supporting the twigs on which the nest rested being only two or three inches in diameter. The nest was quite small and shallow, reminding one of that of the Green Heron. I could not ascertain definitely that a brood had been raised there this season, but my friend was under the impression that it had, but this is doubtful as one of the birds had been shot. None were to be seen about the nest on June 2.—*G. H. Ragsdale, Gainsville, Cook Co., Texas.*

ANOTHER NEST FOR IDENTIFICATION.—*E. C. Nicewander, Baltimore, Md.*, sends us a drawing of a nest which he describes: "The nest was exactly six feet from the ground situated in a horizontal fork of a species of maple, was composed entirely of the bark of some weed, had lining of the same sort, only finer, it had about 30 or 40 long strings hanging from the nest and there was quite a lot beneath it on the ground, nest was slightly pendulous, much like a Vireo's, but lacked the compactness of this bird's and was not woven so nicely; when I approached nearer the bird flew off and darted toward me frequently, uttering a sharp cry. She was about the size of a Wood Pewee, was olive colored on back, black eyes, (very large) white belly, had two white bars on shoulders, was slightly yellow just under the wings. The eggs three in number, were of a creamy white ground, with foxy-red blotches around the larger end. They measured .74x.54, .74x.55, .73x.55."

Our correspondent thinks it possibly Trail's Flycatcher, but it differed somewhat from the descriptions of the nest of that bird given by Mr. Tracy in February O. and O. Baltimore also seems too far south for it.

A SUMMER YELLOW-BIRD FEEDS A YOUNG ROBIN.—Today I saw a summer Yellow-bird flitting among some locust trees, with a large worm in his beak. I followed him up until I saw him go to a locust tree where a young Robin was perched. He fed it just the same as its mother would, and went after another worm. He fed it quite a good while, and then sat on the same limb the young Robin was on. When he caught an insect he would always feed the robin. I do not see how the Robin could eat so much. I watched them quite a good while, until I got tired, and left them both perched on the same limb.—*J. P. Loose, Hagerstown, Md.*

CEDAR BIRD IN IOWA.—*J. W. Preston* says he found on

June 12, near Iowa City, a set of *Ampelis cedrorum*, "the first set recorded from this locality."

STRAY NOTES.—I am often very greatly amused at the way many people have of expressing themselves. I noticed in No. 6 of the O. & O. a paragraph from D. A. K., Sturgis, Mich., in which he speaks of an island in Lake Huron, as abounding with "every species of fresh water duck known." Ye Gods! I thought to myself, what a spot for a collector, has anybody else ever been there? I am pleased to hear from Ornithological friends, Dr's. Atkins and Gibbs, through the O. & O.; hope they will continue to enlighten us.

This spring I shot a male Meadow Lark with a peculiar shaped bill, the upper mandible being as much curved at the end as a Cormorant. Did any of you ever see the like?

I also discovered a Warbling Vireo's nest which contained three Cow Blackbirds' eggs, and one Vireo. The query is "did the same Blackbird lay the three eggs, or were they laid by separate birds?" So far as my observation has been the Cowbird never lays but one egg in nest, that is, I never found more than one in a nest, and my opinion is that they were laid by separate birds.

I wish the Black-and-Yellow Warbler was as easy to approach in this section as they are where the Rev. W. E. Hill resides. I have had great difficulty in securing a few, and always shot them from the tops of the tall trees, and observing that they were exceedingly restless little fellows.—*A. H. Boies, Hudson, Mich.*

Correspondence.

PURPLE FINCH.—(*Carpodacus purpureus*), *C. E. Prior* asks us why the *Purple Finch* is so called. The origin of the misnomer is probably correctly given by Stearns, (*New England Bird Life*, part 1, p. 216). "There is little, if any 'purple' tinge, the name 'Purple' Finch, and the use of the word in old descriptions, having been due to the very faint coloring of Catesby's plate."

WHITE-THROATED AND WHITE-CROWNED SPARROWS.—*Ira B. Henry, Mason, Texas*, writes: "Prof. W. W. Cooke speaks of the White-throated and White-crowned Sparrows, (*Z. leucophrys* and *Z. albicollis*), as wintering "from the northern part of the Southern States to southern Illinois." Both these birds are abundant in winter, in this locality, which is nearly as far south as New Orleans, pretty well to the southern part of the Southern States. Perhaps it is different farther east, as this is a hilly country, and subject to severe northers." The other matter referred to by our correspondent was corrected in the regular edition of the January number.

SPOTTED ROBIN'S EGGS.—*Robert Linton, Pine Bend, Minn.*, and *J. P. Loose, Hagerstown, Md.*, write us that they have found sets of Spotted Robin's Eggs.

ODD SHAPED EGGS.—*Delos Hatch, Oak Centre, Wis.*, writes us that he has this season taken a set of L. B. M. Wren measuring about .75x.50 and another of F. Galinules 2.x1.06 and 1.95x1.25. He finds sets of eggs have generally averaged smaller this year.

FOOD FOR SCREECH OWLS.—*J. P. Loose* says he is keeping three young Screech Owls in confinement, and asks what is the best food for them.

W. O. Emerson writes to say that *Myiodictes pusillus* (O and O VI, p. 62) should be *M. p. pileolatus*, the Pacific coast form, also that his *Scops asio* eggs are variety *Bendirei*.

The following communications have been received:
"Notes" from W. Otto Emerson; "The Shore Lark" from H. G. Smith, Jr.; "The Brown Thrush" from A. M. Drummond; "Broad-winged Hawk," by F. M. Goodwin; "Arrivals for Spring of '84," by S. R. Ingorsoll; "Notes from Jewett City," Conn., by Chas. Edwd. Prior.

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PAWTUCKET, R. I., AUGUST, 1884.

No. 8.

Migration in the Mississippi Valley.

Our readers will miss our usual article on this subject—the absence of which is explained by Prof. Cooke as follows:

"Before my last letter reached you, I was in bed and there I stayed until a day or two ago, and now I can only work a few minutes at a time. As I lay there I planned out the whole of the article for the Aug. number, but my strength never came back so that I could write it out. I am very sorry that I should have had such poor luck in fulfilling my promise to give you an article each month, but if you had been in my place you could have done no better. I hope for September, but have given up making promises, as I am afraid this sickness will hang about me until cold weather comes. In the meantime you have my best wishes and my hearty congratulations on the rapid progress you are making in establishing the O. and O. as a man's paper instead of a boy's, and in getting it recognized as a paper of *scientific* value."

We sincerely hope our kind correspondent may be able to send his usual communication for September.

Breeding Habits of the Rufous Humming Bird, (*Selasphorus rufus*.)

This bird is rather common here, and either their nests are not very hard to find or I was very lucky this season, as I found nine in all. The first nest taken was on May 1st. It was in a small oak about seven feet from the ground, near the end of the limb, and about two feet from the

trunk of the tree. It was in plain sight, but so closely did it resemble the dozens of other little bunches of moss in the tree, that it was almost an accident that I found it. It was composed of the "cotton" from the willow and thistle, plastered with lichens fastened on with spider's silk together with the saliva of the bird. It contained two fresh eggs, having a beautiful "pinkish" cast before being blown, but clear, pearly white afterwards. While I was blowing them the female came around but was very timid, keeping well out of the way; the only hint I had of her presence was the low hum of her wings.

On May 4th, I visited a railroad cut about two miles below here where I expected to find some nests of *Junco Oregonus*. The cut was overhung with vines, and in several places the roots of immense firs projected over the bank so as to form quite a roof. While examining one of these a Hummer started out and away, but returned in a few seconds with another female. I was sure there was a nest there, and on parting the vines discovered it. It was a beauty, one of the best formed I ever saw, being long and pointed at the bottom. It was hung on three or four small wire-like roots, very well hidden by the thick screen of vines in front, and contained two young about two days old. This nest, like the first, was composed of "cotton," etc., and covered with light colored lichens, which showed very plainly in contrast with the dark brown roots and earthy background. While I was examining it there were two and sometimes three

female Hummers buzzing around and uttering angry chirps. Seeing so many, I thought a more thorough examination of the surrounding vines would pay. In a few minutes I had discovered another nest built on the root of what is called here "Oregon Grape." The bird was incubating, but the instant my eye fell on her she darted off, but, like the first, soon returned with her companions and began giving me her opinion of the case. This nest was out in plain sight, but closely resembled the surroundings. It was composed like the others and contained two eggs on the point of hatching.

A third nest was discovered about forty feet further on in an overhanging blackberry vine. This nest was to me something new. It was built on the top of an old one, and the two so neatly blended together that I did not discover the old nest until after I got home. It had a few bits of green moss woven into the white cotton on the rim, and contained one fresh egg.

On May 14th, I discovered another nest on a small oak about six feet and a half from the ground. It was composed like the others and had a few pieces of green moss among the light colored lichens; it contained two fresh eggs.

On June 8th, I again visited the railroad cut and found two more nests, both in blackberry vines. One contained two young just hatched, the other two fresh eggs. These five nests were not over forty feet apart, and I think if I had looked more carefully I could have found more.

On June 11th, I was following a pair of *Pyranga ludoviciana*, and while passing through a thick patch of ferns about four feet deep, a female Hummer darted out close in front of me. Knowing that she had a nest near by I began to look for it, expecting to find it in some of the low bushes. But on parting a very thick bunch of ferns, I was very much surprised to see it on one of the large broad leaves. The leaf was bent over and the nest built near

the end, about two feet from the ground, so overhung by ferns and tall grass that it was the prettiest and at the same time the strangest place for a Hummingbird's nest I ever saw. It was composed as usual of "cotton" covered with light colored lichens, and to all appearances fastened to the fern by spider's silk alone; it contained two eggs, incubation just begun.

My last nest was discovered on June 16th. While walking through a grove of small oaks a Hummingbird flew past me and acted in a way that led me to believe she had a nest near by. A few minute's search discovered it in an oak about seven feet from the ground in plain sight. As I wished to see how the habits of this bird compared with those of the Ruby-throat, I withdrew about twenty feet and sat down to watch. The bird returned in a few minutes, but seeing me still there, began to fly around me at a distance of about twenty-five feet, alighting on every tree, eyeing me an instant, then darting away again. After about five minutes of this manœuvreing she flew up to the tree containing the nest, paused just in front of it an instant, then darted away again. This was repeated several times, but at last she approached from the opposite side and settled down on the nest. Her manner of alighting was very much like that of the Ruby-throat described by "E. M. H." in O. and O. for May. She flew up until directly over the nest, paused an instant, then suddenly closing her wings, dropped into it, then after eyeing me a moment, she began to settle herself into position. I put her off several times and each time the manœuvre was repeated in very much the same way. Once I think she just touched the rim of the nest with her feet, and then dropped down and into position. When she was incubating, her tail and bill were pointed straight up, and they were so close together that they almost touched. The nest was composed as usual and contained two fresh eggs. I shot this bird,

and from appearances should say she had raised one brood at least this season. I have looked very carefully for the male bird whenever I took a nest, but have never been able to see him. Very often there were two or more females buzzing around, but the males kept well out of the way. The nests I have taken have all been composed of the same material, "cotton," from the willow and thistle, and in some cases a few bits of green moss.

They were very much the same shape. Those taken from the vines were a little deeper than those from the trees, however. They measured about as follows: $\frac{3}{4}$ of an inch in diameter by $\frac{3}{4}$ inch deep, inside measurements; outside diameters $1\frac{1}{2}$ to $1\frac{1}{4}$ inches by $1\frac{1}{2}$ deep; one specimen measured 2 inches deep, but it was an unusually large one.—A. W. A., Beaverton, Oregon.

A Few Birds Noticed in Golden Gate Park, San Francisco, May 9, '84.

In a walk over a part of the Park that has not yet been improved, I found more bird life than one would expect to see where the trade winds sweep over the sand downs one half of the year. Russet-back Thrushes were heard singing in the thick low Scrub Oak where they breed and are common, also the little *P. minimus*. The Ground Tit's whistling is heard in the dark thickets. If disturbed it will come out to take a peep at you with a few purring notes, bob his tail, as much as to say, "It is no use, you can't find my wife's nest," then hop back into the thicket. I found a nest of half fledged young. W. House Wren and California Bewicks are not uncommon, House Finch, American Goldfinch and Green-back breed, and are very common. Lazuli Bunting not very common. The Spurred and California Towhee breeds, I took sets of fresh eggs. I was within six feet of a Green-tailed Towhee, (*P. chlorurus*), the first I have seen or heard of near San Francisco or Hayward's.

It was scratching in the dead leaves under the low dark Scrub Oaks, along with the California Song Sparrow. I saw one Western Savannah Sparrow. Anna's Humming Bird is quite common, as there are lots of flowers in the Park gardens where it breeds. A Cooper Hawk flew over and put all the small birds to wing. On June 2, 1881, saw two ravens fly off over the sand hills. Twenty or more Gambel's Quails were let loose in the Park in October of 1881 by Henry Chapman, naturalist and taxidermist, of San Francisco, now dead. They were seen for some time during the following spring, then seemed to disappear, and it is supposed they were driven off by the California Quail, as they are the boss of the Park lawns. At dusk hundreds can be seen feeding on the grass. The spring of 1882 two dozen Gambel's Quail were brought up from Arizona and turned out at Hayward's. I saw them along the creeks. They seemed much tamer than the California. None have been found breeding. No doubt they have been shot by the pot hunters that come out from the city. They are easily distinguished from the California variety by the black patch on the belly and chestnut head. The "Johnnie Bull Sparrows" have found their way into the Park.—W. O. Emerson.

Broad-winged Hawk.

(*Buteo pennsylvanicus*.)

Accompanied by my friends, A. H. Burrlington and R. C. Ashworth, I started out April 14 for a walk. Thinking there might be a new bird in the undergrowth we made off in that direction. Just before we came to the thicket we had to pass through a piece of hard and soft wood timber, so we looked about to see if there were any nests of the common Crow, (*Corvus americanus*), in progress of building. We had nearly reached the thicket when I espied a nest in a hemlock, and as it looked fresh told my companions I would go up to it.

I started up the tree, but had not rapped it many times when I caught sight of a Hawk flying from it. Just then a ringing hurrah came from the foot of the tree where my friends had seated themselves to await my return. I got up to the nest as soon as possible and to my delight found three eggs. Now the next thing was how to get them safely down. I finally tied them up in my handkerchief and started down the tree. I got down safely and then we hid behind trees to watch the parent birds, which were soaring about high in the air. At last one of them came down from its lofty watching place and alighted on a tree near the nest, then the other perched itself near its mate, offering a fine view to us.

The nest was composed of sticks of a little larger size than those used by the common crow, lined with the bark of grape vines and moss; it was but slightly hollowed. Height about forty feet from the ground. The eggs are of a dirty white color, marked with spots and blotches of lilac—*F. M. Goodwin, Hartland, Vt.*

Nest of the Mocking Bird in Connecticut.

About the 20th of June the young man who carries the United States mail between Jewett City and Voluntown reported that he had found a bird's nest containing five eggs quite unlike any he had ever seen.

He described both the bird and the eggs as well as he could, and succeeded in arousing my curiosity. I asked him to bring me an egg, hoping thereby to determine the species. A few days later he informed me that the eggs had all been taken. Fortunately the bird was not easily discouraged, and very soon she commenced to lay a second set of eggs in the same nest. Saturday morning, June 28th, Uncle Sam's man found three eggs and brought me one. In color and markings it resembled the eggs of the Scarlet Tanager and

the Rose-breasted Grosbeak, but could hardly have been mistaken for either. After examining the egg I was exceedingly anxious to see the bird. As luck would have it I could not leave to visit the nest that day, so I notified my friend and sympathizer, Dr. Geo. H. Jennings, and he promptly sallied forth to make a "diagnosis" of the case and report. He found the nest in a blue-berry bush by the side of a rail-fence that separated the barren fields from the highway across "Pachaug Plains." It was composed outwardly of twigs and the dried stalks of field plants, and was very neatly lined with fine fibrous roots and horse hairs. The Doctor brought home one egg and gave a good description of the female bird. The male was nowhere to be seen. The intelligence gained from this reliable source made me still more anxious to see the bird for myself, but as her eggs had all been taken but one, I feared she would desert the nest and the locality before I could get time to go and see her. Monday, June 30th, the Doctor and I visited the nest together, and were pleased to find that she had laid another egg. She flew from the nest as we approached, and in order to get a good view of her we had to crawl on our hands and knees for quite a distance behind the walls and fences. She was very shy, and the male bird did not appear.

Feeling that we had before us a rare specimen, we went back to Pachaug and borrowed a gun with which we secured the bird. We also took the bush containing the nest and the two eggs.

After examining the bird carefully I felt quite certain that it was a Mockingbird. We found a brief description of *Mimus polyglottus* in "Minot's Land and Game Birds of New England," and as our specimen just filled the bill we entertained no further doubts.

This bird seemed much more beautiful when flying than any caged specimen that I have ever seen, her white wing-patches

and tail-feathers showing to excellent advantage. She had a curious way of tossing herself into the air when about to fly, and she would bound over the fields much like the Golden-winged Woodpecker. The only note we heard was between a squeal and a grunt, and cannot well be described.

Fearing that some expert ornithologist may think this a case of "mistaken identity," I will add that the bird was shown to a lady who has spent many seasons in Florida and she unhesitatingly pronounced it a Mockingbird.

July 3, I received from a friend in DeLand, Florida, an egg of this species which was almost exactly like those that I collected. I experienced a great degree of satisfaction in writing to him that I had just taken a set of Mockingbird's eggs within four miles of my door. I would like to know if the Mockingbird has ever been known to breed in Connecticut before.—*Chas. Edw. Prior, Jewett City, Connecticut.*

The Shore Lark. (*Eremophila cornuta*.)

The Shore Lark is one of our commonest birds, remaining with us the year round. It is rarely that a female Shore Lark is seen in winter, according to my observations; the flocks consisting of males, which are gregarious at that season. The females arrive in March.

They commence nesting about the 1st of April. A nest found April 12th contained three eggs, which were advanced in incubation. One found May 1st was nearly finished. During the night two or three inches of snow had fallen, but the bird was undaunted and went on with her work, gathering nesting materials in places where the snow had been cleared away. Another nest found on the same day contained four eggs; incubation commenced. In every case the bird flew from her nest without a note and commenced feeding in an unconcerned manner.

I made the following notes after watch-

ing a pair for some time. The male bird flew up to where I was sitting on the fence and began to scold as if to drive me away. Finding that did not succeed, he flew away to a distant part of the fence and began to sing as if to attract my attention in that way, but I kept my eye on the female. Soon she became restless and began to move about, every little while sitting down in a hollow between the tufts of grass as if there was a nest there, but I was not deceived by her manœuvres.

During this time the male came and scolded at me several times. At last I left them to enjoy their happiness in peace.

The Shore Lark is strictly a ground bird, never perching on trees. Perched upon a fence or on an ant hill on the prairie he warbles forth his song. Like the European Skylark he sings while in the air. I have seen them fly upward in a spiral direction until almost out of sight, ever and anon checking their flight and with vibrating wings warble forth their melody. One will remain in the air generally about a minute and then descend with partially closed wings, checking his descent several times before reaching the ground.

The nest is built in a hollow scooped out by the bird and lined with prairie grasses; inside this is a finer lining of feathers, thistle down and the outside skin of grasses. The eggs are generally three or four, of a dirty white ground color, covered all over with buff and light brown spots.—*H. G. Smith, Jr., Denver, Colorado.*

List of Birds

COLLECTED IN THE NEIGHBORHOOD OF ST. LOUIS, MO., BY
JULIUS HURTER, 2,346 S. 10th ST., ST. LOUIS.

(Concluded from Page 87.)

- The nest was found of those birds that are marked*
 121* *Myiarchus crinitus*, (Linn.) Caban. Great-crested Flycatcher. Summer sojourner.
 122* *Sayornis fuscus*, (Gmel.) Baird. Pewee. Summer sojourner; abundant; March 24.
 123 *Contopus borealis*, (Sw.) Baird. Olive-sided Flycatcher. Transient; rare; May 22.
 124 *Contopus virens*, (Linn.) Caban. Wood Pewee. Summer sojourner.
 125 *Empidonax flaviventris*, (Baird.) Yellow-bellied Flycatcher; transient; May 20.

- 126* *E. acadianus*, (Gmel.) Baird. Acadian Flycatcher. Summer sojourner.
- 127* *E. pusillus trailli*, (And.) Baird. Traill's Flycatcher. Summer sojourner; common.
- 128 *E. minimus*, (Baird.) Least Flycatcher. Transient; May 19.
- 129* *Trochilus columbris*, Linn. Ruby-throated Humming bird; summer sojourner; May 15.
- 130* *Chetura pelasgica*, (Linn.) Baird. Chimney Swift. Summer sojourner; abundant.
- 131* *Caprimulgus vociferus*. Wils. Whip-poor-will. Summer sojourner; May 14.
- 132* *Chordeiles popetue*, (Vieill.) Baird. Night Hawk. Summer sojourner. May 12.
- 133* *Picus villosus*, (Linn.) Hairy Woodpecker. Resident.
- 134* *P. pubescens*, (Linn.) Downy Woodpecker. Resident.
- 135* *Sphyrapicus varius*, (Linn.) Baird. Yellow-bellied Woodpecker. Summer sojourner.
- 136* *Hylotomus pileatus*, (Linn.) Baird. Pileated Woodpecker. Resident; rare.
- 137* *Centurus carolinus*, (L.) Bp. Red-bellied Woodpecker. Resident.
- 138* *Melanerpes erythrocephalus*, (Linn.) Sw. Red-headed Woodpecker. Summer resident. Common; some in winter.
- 139* *Colaptes auratus*, (Linn.) Sw. Yellow-shafted Flicker. Resident.
- 140* *Ceryle alcyon*, (Linn.) Boie. Belted Kingfisher. Summer sojourner; April 6.
- 141* *Coccyzus americanus*, (Linn.) Bp. Yellow-billed Cuckoo. Summer sojourner; May 15.
- 142* *C. erythrophthalmus*, (Wils.) Baird. Black-billed Cuckoo. Summer sojourner; May 16.
- 143 *Aluco flammeus americanus*, (And.) Ridgw. American Barn Owl. Transient; April 13.
- 144 *Asio americanus* (Steph.) Sharpe. American Long-eared Owl. Transient; Jan. 30, a flock of thirty in one tree.
- 145 *A. accipitrinus*, (Pall.) Newton. Short-eared Owl; April 1, Jan. 17.
- 146* *Strix nebulosa*. (Forst.) Barred Owl. Resident; common.
- 147 *Nyctale acadica*, (Gmel.) Bp. Saw Whet Owl. Transient. Very rare; Nov. 25, caught in a Martin box.
- 148* *Scops asio*, (Linn.) Bp. Little Screech Owl. Resident; common.
- 149* *Bubo virginianus*, (Gmel.) (Bp.) Great Horned Owl. Resident; rare.
- 150* *Nyctea scandiaca*, (Linn.) Newt. Snowy Owl. Winter visitor, Dec. 29, 1875, rare.
- 151 *Falco peregrinus nevius*, (Gmel.) Ridgw. Duck Hawk. Migratory spring and fall, Oct. 4.
- 152 *Æsalon columbarius*, (Linn.) Kaup. Pigeon Hawk. Migratory, April 25, Oct. 23.
- 153 *Tinnunculus sparverius*, (Linn.) Vieill. Sparrow Hawk. Migratory; common.
- 154 *Pandion haliaetus carolinensis*, (Gmel.) Ridgw. Fish Hawk. Migratory; not common. April 23, Sept. 29.
- 155 *Elanoides forficatus*, (Linn.) Ridgw. Swallow-tailed Kite. Rare summer visitor. Aug. 7th saw about forty in a flock. They stayed over a week.
- 156 *Ictinia subcaerulea*, (Bartr.) Coues. Mississippi Kite. Summer sojourner; observed by Otto Widman.
- 157 *Circus hudsonius*, (Linn.) Vieill. Marsh Hawk. Migratory, common; Jan. 9, Sept. 25, Nov. 17.
- 158 *Accipiter cooperii*, (Bonap.) Cooper's Hawk. Migratory; Sept. 24, Oct. 19.
- 159 *A. fuscus*, (Gmel.) Bp. Sharp-shinned Hawk. Migratory; abundant.
- 160 *Buteo borealis*, (Gmel.) Vieill. Red-tailed Hawk. Resident.
- 161 *B. lineatus*, (Gmel.) Sard. Red-shouldered Hawk. Migratory; Oct. 14, Nov. 20.
- 162 *B. pennsylvanicus*, (Wils.) Bp. Broad-winged Hawk. Abundant. Migratory; Sept. 21.
- 163 *Archibuteo lagopus St. Johannis*, (Gmel.) Ridgw. American Rough-Legged Hawk. Winter visitor, rare; Jan. 20.
- 164 *Aquila chrysotus canadensis*, (Linn.) Ridgw. Golden Eagle. Rare. Winter visitor; Nov. 5, Jan. 18.
- 165 *Haliaeetus leucocephalus*, (Linn.) Savig. Bald Eagle. Winter sojourner, not uncommon; Jan. 8, May 8.
- 166 *Cathartes aura*, (Linn.) Illig. Turkey Buzzard. Summer sojourner; abundant.
- 167 *Cathartes atrata*, (Wils.) Less. Black Vulture. Summer visitor, rare; observed by Capt. C. Shaler Smith.
- 168 *Ectopistes migratoria*, (Linn.) Sw. Passenger Pigeon. Migratory spring and fall; not as abundant as formerly.
- 169* *Zenaidura carolinensis*, (Linn.) Bp. Mourning Dove. Summer resident; common.
- 170* *Meleagris gallopavo americana*, (Bart.) Coues. Wild Turkey. Resident; rare in this neighborhood.
- 171 *Bonasa umbellus*, (Linn.) Steph. Ruffed Grouse. Resident; rare.
- 172* *Cupido cupido*, (Linn.) Baird. Prairie Hen. Resident; rare in the neighborhood of the city.
- 173* *Ortyx virginiana*, (L.) Bp. Bob White. Quail. Resident; abundant.
- 174* *Ardea herodias*, (Linn.) Great Blue Heron. Summer sojourner, April 5, Occ. 6.
- 175 *Herodias alba egretta*, (Gmel.) Ridgw. Am. Egret. Migratory. Spring and fall the most common.
- 176 *Garzetta candidissima*, (Gmel.) Bp. Snowy Heron. Migratory. Spring and fall, rare; Aug. 17.
- 177 *Florida cervinula*, (Linn.) Baird. Little Blue Heron. rare; April 17.
- 178* *Butorides virescens*, (Linn.) Bp. Green Heron. Summer; quite common.
- 179 *Nycticorax grisea nævia*, (Bodd.) Allen. Black-crowned Night Heron. Summer sojourner.
- 180 *Nyctherodius violaceus*, (Linn.) Reich. White-crowned Night Heron. Summer sojourner, rare; arrives Apr. 10; young, July 12.
- 181 *Botaurus centiginosus*, (Montag.) Steph. Am. Bittern. Summer sojourner; April 14.
- 182* *Ardetta exilis* (Gmel.) Gray. Least Bittern. Summer sojourner; May 13.
- 183 *Tantilla luculator*, (Linn.) Wood Ibis. Rare Summer visitor, Aug. 24.
- 184 *Plegadis falcinellus*, (Linn.) Kaup. Glossy Ibis. Very rare; Feb. 27.
- 185 *Squatarola helvetica*, (Linn.) Cuv. Black-bellied Plover. Rare. Migratory; Oct. 11.
- 186 *Charadrius dominicus*, (Mill.) Am. Golden Plover. Migratory. Abundant; March 23.
- 187 *Oxyechus vociferus*, (Linn.) Reich. Killdeer. Summer sojourner; March 19.
- 188 *Argialites semipalmatus*, (Bonap.) Semipalmated Plover. Migratory; Apr. 25, Sept. 3.
- 189* *Philohela minor*, (Gmel.) Gray. Am. Woodcock. Summer resident; March 31.
- 190 *Gallinago media Wilsoni*, (Temm.) Ridgw. Wilsons' Snipe. Migratory. Abundant; April 10.
- 191 *Macrorhamphus grisescens*, (Gmel.) Leach. Red-breasted Snipe; Grey Snipe in fall. Migratory, April 17, Oct. 23.
- 192 *Micropalama himantopus*, (Bp.) Baird. Stilt Sandpiper. Migratory; Sept. 12; rare.
- 193 *Actidromas maculata*, (Vieill.) Coues. Pectoral Sandpiper. Jack Snipe. Migratory. Abundant; Mar. 2,
- 194 *A. minutilla*, (Vieill.) Bp. Least Sandpiper. Migratory.

- 195 *Pelidna alpina americana*, (Cass.) Red-backed Sand-piper. Migratory; Oct. 7; rare.
- 196 *Ereunetes pisillus*, (Linn.) Cass. Semipalmated Sandpiper. Migratory; rare; Oct. 17.
- 197 *Calidris arenaria*, (Linn.) Illig. Sanderling. Migratory; rare; Sept. 28.
- 198 *Limosa fæda*, (Linn.) Ord. Marbled Godwit. Migratory; April 13.
- 199 *L. haemastica*, (Lin.) Coues. Hudsonian Godwit. Migratory; rare; April 19.
- 200 *Totanus melanoleucus*, (Gmel.) Vieill. Greater Yellow Legs. Migratory; March 24.
- 201 *T. flavipes*, (Gmel.) Vieill. Yellow-legs. Migratory; Spring and fall; March 20, Sept. 8.
- 202 *Rhyacophilus solitarius*, (Wils.) Cass. Solitary Sandpiper. Migratory; April 16.
- 203 *Sympnemis semipalmata*, (Gmel.) Hartl. Willet. Migratory; rare; April 27.
- 204 *Bartramia longicauda*, (Bechst.) Bp. Bartram's Sandpiper. Upland Plover. Migratory, April 3.
- 205 *Tringoides macularius*, (Linn.) Grey. Spotted Sandpiper. Summer sojourner.
- 206 *Numeranus longirostris*, (Wils.) Long-billed Curlew. Migratory; April 2.
- 207 *N. borealis*, (Forst.) Lath. Eskimo Curlew. Migratory; April 10.
- 208 *Lobipes hyperboreus*, (Linn.) Cuv. Northern Phalarope. Migratory; rare; Oct. 9.
- 209 *Steganopus Wilsoni*, (Sab.) Coues. Wilson's Phalarope. Rare; Apr. 22, Aug. 5.
- 210 *Rerurusirostra americana*, (Gmel.) Am. Avocet. Migratory; very rare; Oct. 28.
- 211* *Rallus elegans*, (Aud.) Red-breasted Rail. Summer sojourner; April 9; abundant.
- 212 *R. virginianus*, (Linn.) Virginian Rail. Rare; April 1.
- 213 *Porzana carolina*, (Linn.) Baird. Sora Rail. Summer sojourner. Abundant; April 1.
- 214 *P. noveboracensis*, (Gmel.) Baird. Little Yellow Rail. Rare. March 27; migratory.
- 215 *Ionornis martinica*, (Linn.) Reich. Purple Gallinule. Summer visitor. Rare; April 18.
- 216* *Gallinula galeata*, (Licht.) Bp. Florida Gallinule. Summer sojourner. Common; May 16.
- 217 *Fulica americana*, (Gmel.) Am. Coot. Migratory. Abundant; April 12.
- 218 *Grus americana*, (Linn.) Temm. Whooping Crane. Rare. Migratory.
- 219 *G. canadensis*, (Linn.) Temm. Sandhill Crane. Migratory, March 1.
- 220 *Olor americanus*, (Sharpless.) Bp. Whistling Swan. Migratory; March 16.
- 221 *O. buccinator*, (Rich.) Wagl. Trumpeter Swan. Migratory; Feb. 14.
- 222 *Chen carunculata*, (Linn.) Ridgw. Blue-winged Goose. Migratory; spring and fall.
- 223 *C. hyperboreus albatus*, (Cass.) Ridgw. Lesser Snow Goose. Migratory; Feb. and Oct.
- 224 *Anser albifrons Gambeli*, (Hartl.) Coues. American white-fronted Goose. Migratory. Spring and fall. Abundant; March 8.
- 225 *Bernicla canadensis*, (Linn.) Bole. Canada Goose. Migratory; spring and fall.
- 226 *B. canadensis hutchinsi*, (Sw. and Rich.) Ridgw. Hutchins's Goose. Migratory; spring.
- 227 *Anas bosca*, (Linn.) Mallard. Migratory. Spring and fall; abundant.
- 228 *A. obscura*, (Gmel) Black Mallard. Migratory. Spring and fall; rare; Oct. 13.
- 229 *Charadrius streperus*, (Linn.) Gray. Gadwall. Migratory; spring and fall; abundant.
- 230 *Dafnia acuta*, (Linn.) Bp. Pintail. Migratory.
- 231 *Mareca americana*, (Gmel.) Steph. Baldpate. Migratory.
- 232 *Spatula clypeata*, (Linn.) Boie. Shoveller. Migratory.
- 233 *Querquedula discors*, (Linn.) Steph. Blue-winged Teal; migratory.
- 234 *Nettion carolinensis*, (Gmel.) Baird. Green-winged Teal; migratory.
- 235* *Aix sponsa*, (Linn.) Boie. Wood or Summer Duck. Summer sojourner.
- 236 *Fulix marila*, (Linn.) Baird. Scaup Duck. Migratory; rare; April 1, May 18.
- 237 *F. atra*, (Bty.) Baird. Little Blackhead. Migratory.
- 238 *F. collaris*, (Donov.) Baird. Ring-billed Blackhead. Migratory; very abundant.
- 239 *Aethya vallisneria*, (Wils.) Boie. Canvas-back. Migratory; spring and fall.
- 240 *A. americana*, (Eyt.) Bp. Redhead. Migratory. Spring and fall.
- 241 *Clangula glaucum americana*, (Bp.) Ridgw. American Golden Eye. Migratory; Feb. 1; rare.
- 242 *C. albeola*, (Linn.) Steph. Butterball. Migratory. Spring and fall; March 1.
- 243 *Historionicus minutus*, (Linn.) Dresser. Harlequin Duck. Migratory; rare; Oct. 29.
- 244 *Harelda glacialis*, (Linn.) Leach. Long-tailed Duck. Migratory. Young birds often met with; old birds rare; April 1, Nov. 20, March 14.
- 245 *Oidemia americana*, (Sw. and Rich.) Am. Scoter. Migratory; rare; Nov. 23, Oct. 18.
- 246 *Pelionetta perspicillata*, (Linn.) Kaup. Surf Duck. Migratory; rare; May 3.
- 247 *Erimaturra rubida*, (Wils.) Bp. Ruddy Duck. Migratory; April 25, Oct. 10.
- 248 *Mergus merganser americanus*, (Cass.) Ridgw. Am. Sheldrake. Winter sojourner; common.
- 249 *Lophodytes cucullatus*, (Linn.) Reich. Hooded Sheldrake. Winter sojourner; common.
- 250 *Pelecanus erythrorhynchos*, (Gmel.) Am. White Pelican. Migratory; spring and fall; April 19, Oct. 5.
- 251 *Phalacrocorax dilophus*, (Sw. and Reich.) Nutt. Double-crested Cormorant. Migratory; spring and fall; April 10, Nov. 3.
- 252 *P. dilophus floridanus* (And.) Ridgw. Florida Cormorant; summer visitor.
- 253 *Larus argentatus smithsonianus*, (Cous.) Am. Herring Gull. Migratory; spring and fall; Jan. 20.
- 254 *L. delawarensis*, (Ord.) Ring-billed Gull. Migratory. Spring and fall; April 5; Oct. 30.
- 255 *L. franklini*, (Sw. and Rich.) Franklin's Gull. Migratory; spring and fall; Oct. 18; rare.
- 256 *L. philadelphicus*, (Ord.) Gray. Bonaparte's Gull. Migratory; Oct. 23; rare.
- 257 *Sterna fosteri*, (Nutt.) Foster's Fern. Migratory; spring and fall; May 4; Sept. 26.
- 258 *S. antillarum*, (Linn.) Coues. Least Tern. Migratory; spring and fall; July 24.
- 259 *Hydrochelidon lariformis surinamensis*, (Gmel.) Rw. Black Tern; May 13; common.
- 260 *Dytes auritus*, (Linn.) Ridgw. Horned Grebe. Migratory, spring and fall; April 13, Nov. 3.
- 261 *D. nigricollis*, (Sund.) Ridgw. Eared Grebe. Migratory; May 3, Nov. 2.
- 262* *Podilymbus podiceps*, (Linn.) Lawr. Thick-billed Grebe. Summer sojourner; abundant.
- 263 *Colymbus torquatus*, (Brunn.) Lonn.

APPENDIX.

- 264 *Pyrgitta domesticus*, (Cuv.) English Sparrow.
- 265 *Passer montanus*, (Linn.) Steph. European Tree-sparrow.

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS,
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

In accordance with the desire of several of our subscribers who are interested in Entomology, we have determined to add a few notes every month on that science, with the expectation that an interest may thereby be awakened in it for all our readers. We hope none of our friends will consider this an unwelcome departure from our recognized specialty. We have given every month since we took charge of the magazine, a larger amount of matter than our readers were promised, and therefore think that any of them who can take no interest in Entomology, ought not to object to its being afforded a part of the surplus space.

To give a practical interest to our new subject, we suggest to our Entomological friends the study of the "Buffalo Moth." This moth is adding a new terror to housekeepers in Rhode Island, by its wholesale depredations. Such information as any of our correspondents may give as to its origin and nature, also the best means of destroying it, will be both interesting and useful to many.

We give space to Mr. Frederic A. Lucas for a criticism of our remarks on the De-

struction of Birds for millinery purposes. The subject is one of very general interest, and his remarks may elicit further expressions of opinions. With this view, we postpone what we may have to say further, merely remarking at present that the "nicely adjusted machinery of nature" is subjected to other trials besides the destruction of insectivorous birds. In New England, we hazard little in saying that the present annual "hatch" of English Sparrows, is equal to a season's destruction of birds for the purpose referred to. These must have an effect of a very marked character. On the other hand, the increase of population tends naturally to develop and increase many forms of insect life.

The Destruction of Birds for Millinery Purposes.

Editor of the Oologist. Sir:—Will you kindly excuse me if I take exception to the remarks of yours in the June number where in speaking of the destruction of birds for millinery purposes, you say that "the grievance is purely sentimental" and that "birds of prey are far more destructive than either collectors or professional taxidermists." The grievance is something more than sentimental, since the Oriole and the greater number of our bright plumaged birds not only feed their young on insects, but are insectivorous themselves, and if the birds are lessened the insects increase. Now it must be borne in mind that where an insect escapes it means not merely *one* insect the more to contend with, but that insect *plus all its progeny*, a fact of considerable importance considering the number of young which each pair of insects naturally produces. Moreover the machinery of nature is so nicely adjusted that any interference with it is apt to produce wider reaching results than are at first suspected. When the natural checks on any animal are removed, that animal is given an advantage which it is not slow in following up.

As to the second statement, it is evident that not only are brilliant birds most sought after for ornamental purposes, but that their very brilliancy renders them more conspicuous and all the more easy to kill. The fact that they are in their brightest plumage, and are also most abundant during the nuptial season causes the greatest destruction at the very time when the killing of birds is of the greatest import. Again, even after the birds have begun to breed, their nests are destroyed not only by the scientific collector, but by every boy who wishes a "collection," or who desires to combine the pleasure of bird nesting with the profit of sale to some dealer. And in the above mentioned ways I unhesitatingly affirm that man *does* destroy far more birds than do the birds of prey. The statements that "so long as ornaments are required they will be found" and that "if animals (mammals?) may be slaughtered for their fur, why not birds for their feathers?" are undeniable. I would merely say that the manner in which small birds are generally prepared and worn makes them anything but ornamental to a critical eye, and that the handsomest feathers come from the Ostrich and Pheasants, birds which are at least capable of being partially domesticated.—*Frederic A. Lucas, U. S. National Museum, Washington, D. C.*

Notes from Rehoboth, Mass.

PART I.—RAPTORES.

In lieu of my departed "strain" of Great-horned Owls I was obliged to wait until the blustering winds of March had given place to the showers of April, ere I could venture forth with confidence to reap the harvest of the next breeder, the Barred Owl.

April 7th I took my trip to the usual haunts of these "Hooters" and first inspected Long Hill Woods, where, since the

spring of 1878, I had annually secured a set of their eggs from one of the old Hawk's nests. A pair of screaming "Red Shoulders" prospecting for a situation for their domicile, greeted me with assurances of success for a future visit. I diligently thumped every tree that contained a nest and ascended to the most likely looking ones but no Barred Owl or eggs were found.

I next went to the pine woods some two miles distant, where I also annually secured sets. Here I carefully searched for *Strix* but found nothing.

Matters were growing serious. My disappointment was about all that I could bear. My last resource was Oak Swamp. Surely in that secluded retreat they must be found.

I secured the services of a friend and we thoroughly hunted the swamp, looking in every hollow stump until we found the object of our search.

In a decayed open cavity in a walnut tree was a Barred Owl sitting in full view. The nest was not more than ten feet up in the tree. The Owl did not leave until the tree was thumped; then only flew into the next tree. The set of these eggs was secured without trouble; incubation slight. Whether the Owls in the other localities will return next season is a question of much anxiety with me, for I had promised several friends sets of their eggs, and it was a matter of much chagrin to only record one chick.

The Short-eared Owl played the same game as the Barred. For years past they have bred in a small patch of rank "hassock grass" in a corner of a salt meadow. This year a friend desiring their eggs I directed him to the locality. As the result of several hours' patient search he reported nothing. A few weeks later a gunner, spring shooting for Plover, found their nest and young at the side of the marsh. There must be some reason for such a general change of breeding resorts which remains to be determined.

Of the Red-shouldered Hawk I am able to chronicle fourteen sets taken this season, eight sets of four eggs, the remaining sets three each. Of the Red-tail I found four sets, all of two eggs only. I find the Buteos to breed in open woods, that is, large trees some distance apart, with but little or no undergrowth. All the sets were taken between April 22 and May 1, with nearly every egg slightly advanced in incubation.

Two Sparrow Hawks' nests were found May 13, each a set of four. One of the nests was in an old Flicker's hole in an apple tree just a few rods back of a farmer's barn. Cooper's Hawk are very common. Especially worthy of mention were a set of six eggs May 9, and a set of four sprinkled with reddish brown spots the size of a pin head.

Two nests of Marsh Hawk found May 12, contained five eggs each. One nest was placed in a thick clump of wild rose bushes and briars, some two feet from the ground or rather water, as it was in an overflowed cranberry bog.

May 27, in a clump of Maples in a swamp of dense undergrowth found the nest of the Sharp Shinned Hawk. It contained four eggs advanced in incubation, which proves that these little *Accipitres* do not always wait until June ere they begin housekeeping.

The Fish Hawk colony on Palmer River number about forty nests. After visiting nearly half of them I got a set of four from the same nest which yielded a like number in '82.

I have ascended to their nests in July and found three nearly fledged young sitting on an extended platform of sticks, and also three eggs in the nest proper.

That the Osprey repairs or adds to his nest in autumn is a fact, one pair building a nest in the month of September on a crotch higher up on the same tree with the old nest, to avoid the persecution of boys. They occupied this nest the next spring,

but unfortunately they had trusted their hopes to a slender foundation, and a summer gale hurled it to the ground with two young. They repaired the old nest before leaving in the fall, and this spring's return brought the same pair to their old home.—*F. H. C.*

Notes from Jewett City, Conn.

WHITE-BELLIED NUTHATCH. On Monday, May 19th, one of my young friends, a farmer's boy, who is somewhat interested in oölogy, asked me if I knew what kind of a "Woodpecker" laid speckled eggs? I told him that I had never known a Woodpecker to so far depart from the established customs of its family as to lay other than pure white eggs.

He said he had found a nest in a hole in an apple tree containing nine eggs. They were white with reddish spots, and according to his notion, incubation was pretty well advanced, for he admitted that he had broken three while trying to blow them, and declared that they could not be blown. From his description of the birds and eggs I felt certain that he had found a nest of the White-bellied Nuthatch, (*Sitta carolinensis*), so I went with him and he generously gave me three of the eggs. There were no doubts in my mind, after seeing the eggs, as to what species laid them. I experienced very little trouble in blowing them, although they were somewhat incubated. This was the first nest of the White-bellied Nuthatch that I had ever heard of in this part of the state, and I learned with regret that both of the parent birds were shot "for the purpose of identification." Within two weeks after learning of this nest I was informed of two others that had been found. Each contained nine eggs.

CLIFF SWALLOW, (*Petrochelidon lunifrons*.) May 26th I visited a "colony" of Cliff Swallows, accompanied by my friend George H. Jennings, M. D., who is an enthusiastic ornithological student.

About one mile from Griswold P. O., there is a barn that has for several years attracted large numbers of these swallows. Their nests are placed under the barn, upon the sides of the chestnut timbers that support the floor, and are composed of mud which the birds bring from a swamp near by.

As the Doctor and I stepped under the barn the occupants of the forty-seven nests eyed us curiously for a few seconds, and then with a musical "tweet" flew out. The chestnut patch on the forehead of the Cliff Swallow is very noticeable as their heads protrude from the "nose" of their bottle-shaped mud nests.

The swallows find a protector in the person of Mr. Ezri Reynolds, who warmly appreciates the honor which they confer upon him by returning every spring to his barn, and to his alone. As they rear two broods a season and feed their young upon insects, the number destroyed by them must be incalculable. Any person molesting the swallows in any way would be apt to arouse the ire of the kind hearted farmer, who rightly considers them his friends.

WOOD THRUSH. May 27, I found a nest of the Wood Thrush, (*Hylocichla mustelina*), containing six eggs, three of them Cowbird's. The nest was perhaps four feet from the ground in a little stub of a tree, and only a few rods from where I have found a nest of the same species for two years preceding. I approached to within a few feet of the bird before she flew, and eyed her for some minutes with much satisfaction. After leaving the nest she flew at me fiercely, and her cry of "whit-a whit" was so loud and animated as her wings fanned my face, that it will long remain fresh in my memory. I have never found any bird so brave in the defense of its nest as the Wood Thrush, and I know of no bird that can more forcibly express its indignation at an intrusion.

BALTIMORE ORIOLE, (*Icterus galbula*). I

know of a dozen families in this vicinity who call this bird "Switch him." There is perhaps little satisfaction in trying to express bird-notes in syllables, yet the following can be made to sound very much like the Oriole's song note: "Switch 'im, switch 'im, peà-pum per peà-up, peà-up," with the "peà up" sometimes repeated several times.

I should really enjoy hearing some of the readers of the "O. and O." practise this exercise. It won't sound familiar unless you throw as much energy into its expression as the bird does.

WHITE-BELLIED SWALLOW, (*Trachycineta bicolor*.) I have noticed for several years that this charming bird prefers white feathers for the lining of its nest, and it will almost always manage to find enough to supply its wants. A prettier sight than six white eggs in a neat nest of white feathers can hardly be imagined.

PASSER DOMESTICUS. May 23, I saw a nest of the English Sparrow between a window sash and the blind. It was in the window of a chamber that was not used and the birds had entered through the shutters, made their bulky nest, and reared their young unmolested.—*Chas. Edward Prior.*

Entomological Notes from Laconia, N. H.

Butterflies seem to be very abundant in this part of the country and during the short time I have been here I have captured the following species, a list of which may prove of interest to those collecting insects.

<i>Papilio turnus</i>
<i>Pontia rapæ.</i>
<i>Colias philodice.</i>
<i>Danais archippus.</i>
<i>Argynnis idalia</i>
" <i>cymbele.</i>
" <i>atlantis.</i>
" <i>bellona.</i>
" <i>aphrodite.</i>
" <i>myrina.</i>
<i>Vanessa comma.</i>
" <i>progne.</i>
" <i>faunus.</i>
" <i>antiopa.</i>

- Melitaea pharos.*
Nymphalis arthenis.
Hipparchia alope.
 " *bisulcata.*
 " *nephela.*
Polyommatus lucia.
Lycena americana.
Thecla humuli.

I have seen the following species but as yet have been unable to capture them:

- Cynthia cardui.*
 " *hunera.*
Nymphaea ephemeris.

Last year I obtained the *Vanessa J. album* and the *Hipparchia portlandia*, but I have not seen them as yet this year. The *Vanessa J. album*, *faunus* and *progne*, I usually obtain along the dusty roads in the thick woods where I also catch the most of my *Nymphalis arthenis*. The *Argynniss atlantis* I get in the open meadows about the first week in July, and the *Hipparchia alope* and *nephela* in rocky pastures on high land.

I am raising quite a number of the larvae of the *Vanessa milberti*, a very handsome butterfly which is rather rare in Massachusetts but more common here. I have not obtained any of the Butterflies themselves as yet. I have also obtained several of the larvae of the *Cynthia cardui* and *Vanessa antiopa*, and one of the *Saturnia maia*, a very rare moth.—*Dwight Blaney.*

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE,
 (INCLUSIVE) 1883.

PART VI.

MAY 18. My first observation of the American Redstart, (*Setophaga ruticilla*). This was pursuing its vocation of fly-catching, making a fence or low sapling at the roadside on the border of a wood its centre of operations. This beautiful bird is one of the few of the family of small birds to which it belongs (the Warblers) that will admit of unfailing recognition, against a green or shaded background, at almost any distance. The whole head, throat and back are a lustrous black, belly white, sides of the breast, spot on the wing and the base of the tail feathers, brilliant orange. This is a summer resident and breeds here, but is not abundant.

MAY 19. A bird usually abundant here in the spring migration, but which has escaped my observation this season until to-day, is the Canada Flycatching Warbler, (*Myioodictes canadensis*). Identified two or three of them gleaning among the blossoms of the Crab-apple tree. The upper

parts of this bird are a uniform bluish ash, save a few touches of black on the forehead; the under parts are yellowish; there is a black line under the eye extending down the sides of the neck and merging in black streaks across the breast, enclosing a patch of brilliant yellow on the throat. This bird, viewed from beneath, resembles the Black and Yellow Warbler, but may at once be distinguished from it by its not having any wing markings.

MAY 24. Three or four hours among the birds this morning were quite fruitful of results. I am enabled to add the following new names: the Olive-backed Thrush, (*Turdus olivaceus*), the Large-billed Water Thrush, (*Sturnus motacilla*), and the Acadian Flycatcher, (*Empidonax acadicus*). For a description of the first named see under May 1st. Each species of this group of Thrushes possesses sufficiently strong characteristics of its own to render identification "in the hand" quite an easy matter, but "in the bush" it is not always so easy.

The Large-billed Water Thrush is one of a group of three that possess many strong characters in common, and which are placed in the same genus; the other two are the Golden-crowned Thrush (see May 17th) and the Water Thrush or Water Wagtail. These birds are all smaller than those of the last named group, and are properly assigned to the Warbler family. The following is a description of the bird now before me: the upper parts are of a uniform olive brown; under parts whitish; breast spotted with pale brown; head marked with two prominent white lines, one over either eye. There is a specially close resemblance between this species and the Water Wagtail. The former is a trifle larger and has a longer bill; the head lines are white and more conspicuous, and the throat is unmarked. In the latter the spots on the breast are more clear and distinct, and the throat dimly spotted. The above bird I shot in a wooded ravine through which ran a small stream of water. It was perched in a sapling about twenty feet above the water singing with great animation and in very loud notes a strain of song, which to my ear, is exactly represented by the following syllables: *See see see whit-i-te whit-i-te whit-i-te*.

Of the Acadian Flycatchers I shot two in the midst of a thick wood on a steep slope above said ravine. Both seemed to confine themselves to the lower branches. One of them at odd intervals uttered something like the syllables *sie-see-la*. I was obliged to subject these birds to the most critical tests to fully satisfy myself as to identity. A very general description is as follows: The entire upper parts are olive green; below whitish; wings and tail dusky, the former crossed with two yellowish bars.

The migrating Warblers have evidently nearly all left us. The few I met with were all Canada Flycatchers. Took one of these as a specimen. I before observed of this family of birds that, with few exceptions, each has its own little song peculiar to itself. That of the present species is a little more varied, and at times a little more prolonged than most others, as I had repeated opportunity of observing to-day.

In all of my recent observations have never failed to see the Rose-breasted Grosbeak or hear his song. Since their first appearance they have been very largely on the increase. This bird has a fondness for perching in the top of a tree out in the open field, not far from the edge of a wood, and pouring out his voice in song. He is a most persevering singer, singing at all hours of the day, and especially at noonday when other birds are silent, his song is almost sure to be heard.

Examined the nest of the Red-winged Blackbird. This was lodged in the fork of an elder bush among some low willows near a water course in a pasture-field, and was composed chiefly of strips of the thin covering of dried

weed stalks, and lined with fine dried grasses and weed stems. It contained two fresh eggs tinged with light blue and blotched with black or brown. This bird is very abundant.

Discovered in a small retired wood the nest of a Scarlet Tanager. This was placed in the top of a dead Crab-apple tree covered with the wild grape-vine, about twenty feet from the ground. Was enabled to reach it by climbing an adjoining sapling. It was loosely constructed of light, dried weed-stalks, with a few dried thorn-blossom stems and horse-hair for a lining. It contained four eggs—two being the owners, and two the Cow Blackbird's. The former's eggs are somewhat elongated and of a light blue color, spotted with reddish brown. Observed the male of the above bird repeatedly give chase to the Blue Jay until he had entirely driven him from the premises.

Numerous nests of the Wood Thrush, also of the Baltimore Oriole and several of the Summer Yellow-bird came under my observation.

MAY 25. In my saddle this evening I heard issuing from the thicket at the side of the road a single whistling bird note at short intervals, and one I had not before heard this spring. I suspected the author of it but was resolved to get sight of him. I dismounted and went in pursuit. The odd note sounded at a little distance among some briars; while nearing the spot the same note was suddenly transferred to another part of the thicket. Thither I bent my course, and now when just upon him (as I imagined) again that same strange note fell on my ear, and this time directly from behind me, and as far away as before. At length—after we had kept up this hide and seek game for at least a quarter of an hour—he blew his whistle from some low briars out in the open field, when, by a near approach, I succeeded in sighting and recognizing his oddity the Yellow-breasted Chat, (*Icteria virens*). This bird is about the size of the Catbird, has a bright yellow throat and breast; the upper parts are a uniform olive green. He lives in the midst of thickets and down among the briars, and because of his skulking habits, although not uncommon, is rarely seen. During the breeding season his many odd notes and singular ways have made him quite famous.

MAY 27. During a drive along the creek-road this evening saw a pair of Belted Kingfishers, (*Ceryle alcyon*) also a pair of Spotted Sandpipers, (*Tringoides macularius*), better known perhaps as the Tip-up or Teeter-tail. Both of these birds are common summer residents along our streams. The prevailing color of the Kingfisher is dull blue; there is a white band around the neck, and a band of blue across the breast, and in the female a belly-band of chestnut. The head is quite large and crested. The Spotted Sandpiper is quite a small bird of a "Quaker" color. The more common names describe a curious habit which sufficiently distinguishes the bird to most persons.

JUNE 1. A morning's stroll along the banks of "Tumbleson's Run"—but sparsely timbered, but in many places covered with a thick undergrowth, resulted in the finding of many nests. One was that of the Wood Thrush—fixed as usual in a low bush—which contained two eggs of the Cow-Blackbird and but one of the Thrush, all in an advanced state of incubation. At one time it was supposed the Cow-blackbird laid her eggs only in the nests of a few elect birds, and those smaller than herself. My observations this season satisfy me they are almost wholly indifferent to the matter, having found their eggs alike in nests of the Summer Yellowbird and Cardinal Grosbeak, the Phoebe-bird, the Scarlet Tanager and Towhee Bunting, and in nests in the tree-top, in the bush and on the ground. Having in view returning to the above nest hereafter, I removed the Thrush's eggs, being curious to know what measure of de-

votion these birds will give to raising Cow-blackbirds.

Another nest was the Scarlet Tanager's. This was near the end of a horizontal limb of the Spruce, about fifteen feet from the ground. This seemed to be even a more flimsy affair than the nest of this bird previously described, being almost as transparent as a coarse sieve.

Another was that of the Black-capped Titmouse or Chickadee. This was in a hole in a rotten limb of an old decayed and fallen tree, about three feet from the ground. By breaking off a few bits of the rotten wood with my hand was enabled to see into the nest and to discover two well fledged young birds. The nest consisted of a soft material of both animal and vegetable matter. In a bit I tore off, detected a number of hairs of the grey squirrel. These birds are not numerous here and their nests very rarely met with.

Another nest I was much gratified in finding was that of the Rose-breasted Grosbeak. This was placed in the top of a thorn-bush about eight feet high on the bank of said stream, on the edge of a thicket and in the neighborhood of a few tall trees. It much resembled that of the Cardinal Grosbeak, being a light, thin structure, and composed exteriorly chiefly of dried weed stalks loosely put together; the inside material—forming a good half of the whole—consisted exclusively of fine dried stems of the Spruce-pine. It contained three fresh eggs.

Secured a beautiful specimen of the Cerulean Warbler, (*Dendroica cerulea*), which I shot out of the topmost branches of a massive oak, firing three times before bringing it down. This bird discovered itself to me by its song, the notes of which—forming a single brief strain oft repeated—were very loud and animated for so small a bird. The following will serve for a description: above, a beautiful azure blue streaked with black; below white, streaked on the breasts and sides with black; wings crossed with two bars of white.

Shot an Orchard Oriole for identification failing to recognize its song. This was a bird of the last year and of imperfect coloring. Underdate of May 2, I said there was a striking similarity between the song of this bird and the Warbling Vireo. In many instances this is true, but I find, after more extended observation, the former's song is not always identical, not even in the same individual, as it always is with the Vireo.

Saw the Black-billed Cuckoo, (*Coccyzus erythrophthalmus*), for the first time this season. The strange, low, guttural notes of several of these birds fell on my ear during the morning. There are two species of the American Cuckoo, the other being called the Yellow-billed. These are long, slender birds—the tail itself measuring at least six inches. The coloring in both is about the same, being a uniform olive-green above and white below. The eye lids of the Black-billed are a bright red and the tail feathers but slightly tipped with white. In the Yellow-billed the lateral tail feathers are black and all have large white tips. This last feature will enable one at once to separate the two species with a view from beneath. The yellow bill is also readily detected.

Brief Notes.

FIVE ADDITIONS TO THE AVI-FAUNA OF MICHIGAN, (O. and O. IX p. 81). Dr. Atkins desires us to add the date of capture of the *Gray-headed Snow Bird*, which was accidentally omitted. It was October 22d, 1878.

THE OREGON JAY. (O. and O. IX p. 69) "May 4th" in this article should read "March 4th."

A TRIP TO A HERONRY. (O. and O. IX p. 30.) I notice in O. and O. for July a piece entitled "A Trip to a Heronry," by H. A. Talbot, of this city. He says: "Several

Snowy Herons were seen, but we could not get a shot at them." The study of R. I. birds has been one of considerable interest to me for twelve years, and I know of no authenticated instance of the capture of the Snowy Heron during this period. Still it is not improbable that they may occur. During the past eight years two young little Blue Herons have been shot and sent to me, and at the time of the capture of the latter more were seen. These birds look precisely like the Snowy Heron and especially at a distance. The distinguishing marks are slight bluish tips to the wings. Last year ('83) there was quite a flight of American Egrets. These two species appeared in summer, July and August. As Mr. Talbot did not succeed in obtaining a Snowy Heron, which with a limited experience might easily be confounded with the other two mentioned, I think his occurrence must be annulled as a R. I. record.

—Fred T. Jencks, Providence, R. I.

THE BALD EAGLE. We have had sent to us for mounting a fine specimen of the Bald Eagle. The bird was hatched last spring ('84) on Cape Hatteras in this state, and taken from the nest by a party of fishermen and brought here and sold to a gentleman of this place who tried to tame it. It grew very fast but resisted all efforts to tame it, and would fight fiercely if molested. It finally pounced on the gentleman himself so fiercely that he had to kill it in self defense. The bird measures 35½ inches in length with a spread of wing measuring 7 feet 4¾ inches from tip to tip, and weighed 12 lbs. 3 oz. It is by far the largest bird of its age we ever saw. The men who took it say the old ones would measure twelve feet, and that they have been nesting on the Cape for a number of years, and have been known to carry off young pigs and sheep of quite large size. There is a superstition among the ignorant bankers which prevents the killing of these birds—but we hope to get one or both of them ere long.—Clarke & Morgan, New Bern, N. C.

CHIMNEY SWALLOWS. The janitor of the block in which my office is located, yesterday brought me a fine pair of Chimney Swallows, which he captured in the "dust box" in the basement of the building. The place where they were found is 160 feet from the top of the chimney—and the birds must have been there some time, as they were very weak and made no resistance when captured. They are very tame, and although I have placed them on the window sill several times, they have come back into the building, and seem perfectly satisfied to remain.—Fletcher M. Noe, Indianapolis, Ind.

ALBINO BARN SWALLOW. July 2, I had the good luck to shoot an Albino Barn Swallow that was evidently not long out of the nest, but still was in good plumage. It was a creamy white on belly, the back of a lighter shade, and contrary to most Albinos, did not have pink eyes. I need not say I gladly welcomed it to my collection.—A. J. Johnson, Hydeville, Vt.

THE RUBY-THROATED HUMMING BIRD. I took the nest of the Ruby-throated Hummingbird June 17. There were two eggs slightly incubated. They were larger than I expected. It seems to me they are large for the size of the bird. The nest was on an elm tree about thirty-five feet from the ground. On July 9th, I found another nest about six rods from this—probably of the same bird's. When found it had one bird just hatched, and one egg which hatched the next day. The young were almost black and are yet (July 14) except a strip of down on their backs which is light brown. I have not seen the male yet, though I have watched closely for him. The old bird is rather shy and will not come very close to me, but buzzes around through the tree-top uttering almost constantly a low chirp which sounds much like the squeak of a young mouse. I

did not hear her make any sound while perched.—Vernon Bailey, Elk River, Minn.

BLACK-CAPPED VIRO. I succeeded to-day in obtaining *Vireo atricapillus*, male and female, and saw two other specimens of the male. The Vireos were found in dense, swampy undergrowth of Pecans and Scrub Oak, and no doubt breed here—although I have searched diligently I have failed to find either their nests or that of the L. T. Chat, (*Icteria longicauda*), which is abundant in same locality.—W. L. San Angelo, Texas.

WHITE-THROAT AND WHITE-CROWN SPARROWS MIGRATION IN NORTH TEXAS. Noticing the note in July O. and O., (current Vol.) concerning the above species being a winter resident in Mason Co., Tex., caused me to examine my date chart for January notes, but I have found none. My chart gives dates as follows: *Zonotrichia albicollis*—March 16, 1876, Dec. 6, 1876, Dec. 18, 1878, March 11, 1879, Feb. 27, 1884. *Z. leucophrys*—March 16, 1877, May 11, 1877, Oct. 23, 1877, April 24, 1878, Dec. 18, 1878, March 11, 1879, May 2, 1879, Oct. 21, 1879.—G. H. Ragsdale, Gainesville, Cook County, Tex.

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

In explanation of our not responding to requisits sent us from time to time, to insert Ornithological Notes which have appeared in other papers, we wish to say that we have made it a rule *not* to reprint from any but Foreign papers, and from these only to a very limited extent. We consider any other course unfair to our readers in general, and quite unnecessary as we always have an abundance of material to choose from.

PHOTOGRAPHS OF SCIENTISTS. As there are ornithologists who are desirous of securing photographs of prominent fellow workers, which if published might prove an aid to that end, I would add that Mr. Gutekunst has the best negative of the late Dr. Brewer ever taken. Whether he is permitted to supply prints to the public I am not prepared to say. Dr. Brewer had a very large collection of photographs of the most prominent ornithologists, which I fear were not named at the time of his death and so are probably lost. Respectfully yours,

JOS. M. WADE.

PHILADELPHIA, May 28, 1879.

Mr. Jos. M. Wade. Referring to your inquiry as to pictures of prominent naturalists, I have pictures of Waterhouse Hawkins, Dr. Jos. Leidy—and perhaps some others—and I am this morning in receipt of a kind letter from Dr. Brewer offering me the privilege of copying any of a list of names which he furnishes—of distinguished scientists of Europe. Should you wish copies of any of these I will be pleased to hear from you.

F. GUTEKUNST.

We insert the above with pleasure, and shall be pleased to hear from photographers who have portraits of prominent ornithologists which are accessible to the public.

C. H. Wilder, Canandaigua, N. Y. The note to which you refer was from the *London Graphic*, regarding the English Robin.

NEST OF THE CHEWINK. Job. Barnard, Washington, D. C., writes us that he has found a nest of the Chewink on a small Cedar about one foot from the ground, and asks whether any of our readers have seen its nest otherwise than on the ground, in accordance with the authorities. Also if it is more disposed than other birds to abandon its nest if disturbed.

Notes received from Chas. Ewd. Prior and R. B. Scriver.

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PAWTUCKET, R. I., SEPTEMBER, 1884.

No. 9.

Migration in the Mississippi Valley.

AMERICAN ROBIN, (*Merula migratoria*). Judging from the notes, this is the commonest and best known bird in the district, there being half as many more notes on this than on any other species. We should therefore be able to determine its movements with great accuracy. We find that it did not reach its winter quarters until after January 1st. All through December it was found in abundance throughout southern Illinois, Missouri and Kansas, but the extreme cold of the first week in January drove it farther south into its real winter house. During the larger part of the month of January the bulk of the Robins, and probably even ninety-five to ninety-seven per cent, were south of the parallel of 37° . This is south of the usual limit, the northern boundary for ordinary winters being 39° . We must not think that no Robin ever spends the winter north of these places. The fact has been repeatedly demonstrated that nature has bestowed on them a strong constitution, so that given plenty of food, they can stand almost any degree of cold. Every year reports come in of Robins found wintering far north, and last season was no exception. One was seen on New Year's day in northwestern Indiana; at Vermillion, Dak., 42^{56} on January 11, and finally at Hastings, Minn., 44^{45} , five hundred miles from his brethren "one was seen December 28 with a flock of Pine Grosbeaks, *P. enucleator*, apparently at home, and bound to spend the winter. It was seen repeatedly and

actually did put it through till spring with the same flock of Grosbeaks."

The distribution of the Robin in its winter home depends entirely on the food supply; where food is plenty, there are the Robins, though people a few miles away may not see one all winter. At Manhattan, Kan., 39° , there is an abundance of berries, and last winter as in previous years, large flocks of five hundred or more, were constantly seen, while other stations, but a short distance away, report no Robins from December until February; Manhattan is also the most northern station at which flocks of Robins remained during the winter. So far as can be learned few Robins winter in Indian Territory, nor does Northern Texas fare much better, but from southwestern Texas comes the report that the Canon of the Neuces River for three hundred miles is the winter home of countless myriads. From all the Southern States comes the report that one station finds them abundant and another rare.

The most curious and interesting feature of their doings last winter, was their crowding together in immense numbers at a "Robin Roost" near Harrisburg, N. C. From an account in the Charlotte (N. C.) *Observer* we gather that the roost was in a great canebreak, extending for a mile or more on each side of a small creek. Thither, between five o'clock in the afternoon and dark, went great flocks of Robins, until the whole canebrake was alive with them. Every night for several weeks in January and February, parties of men and boys, armed with short sticks, killed hun-

dreds and thousands of them, but there was no perceptible diminution in their numbers. A count on one night showed that two thousand one hundred and ten birds had fallen before the deadly sticks, and on other nights the total was much higher. The birds came from all directions and many from great distances.

As if disliking their winter quarters, the Robins pushed north at the first breath of warm weather. Regardless of the certainty of being overtaken by late spells of cold, they hurried on, from January 31 to February 3, and occupied all the country from which they had been driven the first of the year. This movement was of course confined to comparatively few individuals, and while the scouts had advanced to 39° or even a little farther north—single birds being seen at Burlington, Ia., 40° , and at Lake Mills, 43° —the main body still remained in camp three or four hundred miles to the south. Then occurred a whole month of waiting, during which adventurous birds pressed northward only to be driven back by snow and ice; nor was the real advance commenced until March 9. From that date until they had passed over our northern boundary their advance was constant and more or less uniform. The regular advance of the van appears to have been as follows: From March 9 to March 15, they spread over Illinois and Eastern Nebraska to latitude 41° ; on the 16th a slight advance in Iowa; 17th and 18th no record; 19th and 20th an advance in Iowa, Illinois and Wisconsin, but not in Nebraska, to latitude 43° ; 21st a sudden spreading over Wisconsin to latitude 45° . By March 24, the rest of the stations in Wisconsin had reported and an equal advance had taken place in Minnesota, so that by this date the van was at 45° all along the line. North of here all the stations are in the valley of the Red River of the north. In this part the first arrivals reached latitude 47° on April 3, and just one week later appeared at Oak Point, Manitoba, 50° .

The fact that spring migration on the western plains is several days behind migration in the same latitude farther east, is clearly shown by the record of the Robin. At Ellis, Kan., 38° , the first one came March 21; in Illinois it reached that latitude six weeks earlier; at Menoken, Dak., 46° , on April 29, east of there at Frazee City, Minn., 46° , came on April 3. While at Larimore, Dak., 47° , high bleak situation answers to a western position and the Robins did not come until April 21.

The bulk of the species travelled much behind these advance guards in the lower part of the course, but moving faster than the scouts, by the time the end of the march was reached it was but a few days in the rear. It reached 39° from March 12 to 17, then moved to 43° on March 23 and 24; to 45° by March 27 and 28, and to 47° on April 5.

From the few scattered notes on the subject, we may guess that the bulk left 35° on March 7; 37° on March 25; 39° on March 31, and 41° on April 10. By the middle of April in all the country south of 43° , all Robins had left those places where they did not intend to breed and at the other places, had settled down to summer members.

YELLOW-RUMPED WARBLER, (*Dendroica coronata*). The hardestiest Warbler of all is the Yellow-rump; it stands a temperature of twenty degrees below zero with no apparent inconvenience; give it plenty of Poison Ivy berries to eat and it does not care how the mercury stands. Along latitude 39° , it usually winters almost every where, but the unusually severe weather of the first week in January, drove it southward from all but the most favorable localities. About twenty birds remained through January at St. Louis, and not quite so many at Manhattan, Kan. It was not until the middle of March that the northward movement commenced; this was marked at Caddo, Ind. Ter., by the return of the birds from the bottom lands whither

they had been driven by the cold, to the borders of the prairie. There was scarcely any increase of numbers until April 1. At more northern localities the first wave was marked by the arrival of more birds. This wave reached 39° the last week in March, but was stopped by the heavy snowstorms of the first week in April and made no move until the middle of the month. Out of the nineteen records of arrivals at stations between 39° and 45° , only two mention any Yellow-rumps before April 16, but on that day and the two following, they appeared in large numbers over the whole of this two hundred thousand square miles. What an incredible number of Yellow-rumps must have been moving on these three days! The same wave brought the bulk to the region south of 39° and another two weeks carried them up to 45° , making them for the time one of the most numerous birds of the upper Mississippi Valley. Having now passed over the land of spring time and reached a country still ruled by winter, they checked the hurriedness of their flight and did not reach 47° until the second week in May. A few breed a short distance north of this, but the bulk pass on to British America.

A curious incident occurred in the migration of this species at Heron Lake, in southwestern Minnesota. On March 18 there arrived an immense flight of Ducks, all coming from the west, as if from the Missouri Valley. Together with them, or at least on the same day, came great flocks of Blackbirds and "a large flight of Yellow-rumps in fine feather and song." Where they came from is a mystery. A competent observer, southwest of there on the Missouri River, did not find the species common until nearly two months later, and no station south or southeast reports them at all until three weeks later, nor at Heron Lake was the arrival of the bulk noted until thirty-three days afterward. It would seem to be a case of a flock caught by some upper air current and carried farther

than they intended. While most of the birds left Central Illinois the first week in May, some very late migrants were seen at Whitehall, $39^{\circ} 27'$, on May 21.

CLIFF SWALLOW, (*Petrochelidon lunifrons*). He who would see these birds in their glory should visit some of the great rivers of the western plains. Prof. Aughey says that he counted in one place two thousand one hundred nests. All over the northern part of the Mississippi Valley it is an abundant breeder. Leaving the United States in winter, it does not reappear as soon as the White-bellied nor the Purple Martin, but about the middle of March they begin to return. They were very plentiful at Eagle Pass, Texas, $28^{\circ} 43'$, on March 27, advanced very rapidly to about latitude 40° , and then came to a halt. One was seen at St. Louis on April 15, and the species had already been noted from Burlington, Ia., on April 10. There is something singular about these Swallow records at Burlington and St. Louis; on three species of Swallows the record at Burlington, though a hundred and fifty miles farther north, is some days ahead of St. Louis. The White-bellied was seen at Burlington, March 10; at St. Louis, March 24. Barn Swallow at Burlington, April 10, at St. Louis, April 16. Cliff Swallow at Burlington, April 10, at St. Louis, April 15. Knowing the diligence with which Mr. Widmann sought out new arrivals, these occurrences are unexplainable.

To return to the Cliff Swallow. After reaching St. Louis and Burlington there is a pause until April 25. Starting then by May 1, they were all over the country south of 45° and reached Oak Point, Manitoba, $50^{\circ} 30'$, on May 22. There seems to have been much movement April 27. On this day it appeared throughout most of Western Missouri, Eastern Kansas and South-eastern Nebraska. At Caddo, Ind. Ter., it was abundant in fall migration, the last leaving October 9, but none had returned by April 7, though the Purple Martin had been there about a month.

The Cliff Swallow is not known to breed in the southern portion of its United States range. Nests south of the parallel of 38° are very rare. The following note from Waverly, Miss., 33³⁴, is therefore the more interesting: On April 10, a pair of these Swallows appeared and soon commenced house-building. Two broods were raised and the nest, which was a great curiosity in that country, is still preserved. Had one seen the thousands and thousands of these Swallows, which one evening in the last of July were nesting on a marsh near Red Rock, Indian Territory, he would have been tempted to believe that Prof. Aughey's two thousand nests had emptied their entire contents on this particular place.

Notes from DuBois, Pa., July 24, 1884.

The spring migration in this locality was exceedingly unsatisfactory, chiefly owing to the cold and windy weather which prevailed almost without intermission at the height of the migrating season. This immediate neighborhood is covered with dense pine and hemlock forests, and even in the most favorable weather it is no easy matter to identify the rarer species of Warblers and other small birds at an elevation of from thirty to seventy-five feet, and when seen against a leaden sky with an accompaniment of moaning wind and creaking branches that effectually drown their characteristic notes, it becomes impossible to collect the more desirable birds without a great slaughter of the common species. Owing to the meagre results of my collecting trips I have but little of interest to present. There seemed an unusual abundance of Scarlet Tanagers in the imperfect or mottled plumage, caused no doubt by retarded moulting on account of the late spring. One male specimen taken May 20 is of a light orange color and was mistaken for an Oriole on an imperfect view. It showed marks of age, and is probably several seasons old. The backward season

accounts for the great number of northern species which seem to be breeding here. The Snowbird, (*Junco hyemalis*), Winter Wren, (*Troglodytes hyemalis*), Red Crossbills, (*Loxia curvirostra*), can now be seen and heard daily, and such Warblers as the Blue Yellow-back, Black and White Creeper, Chestnut-sided, Blackburnian, Black-throated Green, Black-throated Blue, Canadian Flycatcher, (*Myiobius canadensis*), and Black and Yellow Warbler seem to be much more numerous than I have ever observed them before, at this writing. An experienced oölogist would undoubtedly find a rich reward for a season spent here. I have observed the females of many of the above species show unmistakably by their manner and appearance that they were nesting, but I have never had the time or inclination to search for their nests. DuBois is about 1500 feet above the sea level, is nearly surrounded by primitive forests. The summers are short and cool and often interspersed by frosts. It is therefore a congenial summer home to none but the most boreal birds. During a drive about a week ago in the vicinity of Watsontown, Northumberland Co., (a much warmer place) I saw a pair of Shrikes, presumably, (*Lanius borealis*), flitting about a wheat field and capturing grasshoppers. I have never found Shrikes before in this State except in winter.—W. V. F.

Notes from Taftsville, Vt.

June 21st, I found a nest of the White-throated Sparrow, (*Zonotrichia albicollis*), containing four fresh eggs, and July 3d, another containing three. Both nests were constructed of dried leaves, weeds and grasses, lined with finer grass, and both were placed on the ground in slight depressions. They are a little larger than the nests of the Song Sparrow, (*Melospiza fasciata*), but closely resemble some of the latter. The eggs are greyish white marked with confluent blotches and spots of different shades of brown and lilac. The

largest of the seven measures .89×.73, the smallest .83×.73.

It is probable that both nests belonged to the same pair of birds.

Several correspondents of the O. and O. mention that they have found spotted Robins' eggs. These statements remind me that twelve or fourteen years ago I found a Robin's nest containing four eggs marked with fine brown spots. In those youthful days the art of blowing eggs and keeping them in sets was unknown to me. The single egg which I took is now extant and shows the markings distinctly.

This season I have taken two sets of Indigo Bunting's, (*Passerina cyanea*), eggs, one of three, the other of four, in each of which two eggs are marked with pale brown and lavender spots.

I recently shot a Song Sparrow, (*Melospiza fasciata*), of which the following is a description: Male.—Underneath, dirty white; breast streaked with buff. Other parts buff; back, shoulders and cheeks streaked, and wings and coverts edged with light chestnut. Crown with a few chestnut feathers. Tail buff below, above light chestnut, darkest on outer edges; with obsolete transverse bars of same. Bill and feet light brown tinged with pink; iris light hazel.—*C. O. Tracy.*

The Black and White Creeper.
(*Mniotilla varia.*)

June 16th, I found a nest of the Black and White Creeper containing five young birds, one of them evidently a Cowbird. I was in the woods the day previous with my little son who is very fond of birds, and after showing him several nests of Vireos, Redstarts and Golden-crowned Thrushes, I heard a loud, energetic alarm note repeated over and over again. I soon discovered a pair of Creepers in a very excited frame of mind. I watched them for a few minutes and as it was growing dark I resolved to visit that particular locality the next morning, feeling sure that they

had a nest there, and that I could find it. Seven o'clock the following morning found me in the woods again, and the birds were also there, apparently as deeply interested in my movements as I was in theirs. I hunted around for an hour or so without success and then retired from the scene of action and waited awhile, hoping the female would return to her nest and that I should be successful in flushing her later.

They were evidently bound not to be caught napping, for upon my return they were scolding away as earnestly as ever. As I was about to leave them to their chosen solitude, feeling that they had outwitted me, I saw a small dead bird lying upon the ground, and as I stooped to examine it, I discovered the long looked for nest. It was placed near the top of a gently sloping hill, by the side of the trunk of a young oak, and was quite well concealed. It was composed almost wholly of dried grasses and was not a bit too large. The five occupants completely filled it, and the young Cowbird realizing (apparently) that he was an intruder and feeling ashamed of being caught imposing upon such small fry, gave a bound and a lusty chirp, and walked off. The little Creepers followed the example of their big foster-brother, and soon all was confusion. The parent birds hearing the cries of their young were at my side in an instant, chirping piteously and trailing their beautiful wings as if trying to induce me to reach for them. They were within my reach several times, and by their excited actions and droll performances they seemed to say as plainly as if by words, "Please don't hurt our babies. Take us."

In all my bird's nesting experience, I have never witnessed a more tender and beautiful exhibition of the love of parent birds for their helpless young.

Although my collection of eggs was not enriched by this find, yet the experience was one that will always be pleasantly remembered.—*Chas. Edw. Prior, Jewett City, Conn.*

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS.

THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

At the time of writing (August 23d,) the second volume of the Transactions of the Linnaean Society of New York—announced for publication on the 15th—has not reached us.

An interesting monograph on the Sparrow Hawk by Dr. W. Van Fleet appears in the *Continent Magazine* for July 2d. We are pleased to welcome Dr. Van Fleet among our subscribers and contributors.

We give this month the concluding portion of the Rev. W. E. Hill's journal, "Birds of the Panhandle, W. Va." His notes contain a mass of facts regarding the birds of his locality, all of which bear the impress of close personal observation. We are much indebted to Mr. Hill for the labor he has expended upon their preparation for the press.

We announce thus early our programme for the coming year. We propose to give 16 pp. each month, exclusive of advertisement sheets. While preserving the present size and general appearance, we will, by using other type, obtain space for one-half more matter on each page. Thus we

will give what will be equal to 24 of our present pages monthly—exactly double what we have been giving. Our subscription will *not* be doubled, but we propose increasing it to a dollar and a half. We hope by this means to establish our Magazine on a permanent basis, which with the support of our contributors and subscribers it may long maintain.

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Our Birds in Their Haunts.

This is the well chosen title of a book* which deserves notice and a place in the library of all interested in Bird Life. Its special aim is described in its title. Mr. Langille does not take for his description a dead specimen on the dissecting table, but the Bird as it appears in the freedom of its native fields and woods; hence we do not have a scientific description showing *why* the names are given and what points in the Bird's appearance or character justified them. We are introduced to him as he appears to those who seek his acquaintance to know his habits and life—not to obtain specimens of more or less rarity for their collections.

In saying this we do not mean that the book is destitute of scientific descriptions, but that these are subsidiary to the main object, which is "To popularize the science of Ornithology for Eastern North America."

The book contains descriptions of all the Birds commonly found east of the Mississippi. These are referred to apparently as occasion offered; not classified in any way that we can perceive. An index, however, prevents this being objectionable. The author's style is readable, and his book needs no special training in the science of Ornithology to make it thoroughly interesting.

* "Our Birds in Their Haunts;" A popular treatise on the Birds of Eastern North America; by Rev. J. H. Langille, M. A.; pp. 624. Boston: 1884. S. E. Cassino & Company.

Curious Nest of the Warbling Vireo.

All Oölogists are acquainted with the ordinary form of this Vireo's nest. It is interesting to know that the bird sometimes departs from the usual manner of building, and, incited probably by the spirit of progress, puts a roof on its house. The fact that there was such a nest in existence coming to my knowledge, I wrote to the possessor, Mr. H. M. Griswold of Tampico, Ill., and received the following reply: "I found the nest about two years ago while looking for Indigo Birds. As I passed along a row of soft Maples, I was attracted by the harsh, rasping sound, which the Warbling Vireo gives when disturbed. After looking about for some time, I saw a large bull snake, about three feet long, twined around a limb, some ten feet from the ground. A charge of shot brought down the snake with a live bird in its mouth, which it released as it fell. As the bird was strong and nearly full-grown, I climbed to where I could reach the nest, which was hanging from the extreme end of a long limb, and replaced it. After the bird had flown, I took the nest, which I send you by to-day's mail."

The description of the nest is as follows: Outside diameter, three and one-quarter inches by two and one-half inches deep; cavity inside, two inches by one and one-half inches deep. The materials are of the ordinary sort, but very strongly put together. The nest is joined to a limb three-fourths of an inch in diameter by two sets of threads, and to a very small branch along its rim, being thus suspended in the crotch of the limb and the branch. At the end of the little branch, which is not quite three inches long, the fibres that twist in and out to form the rim of the nest are gathered together, given a half turn, and then spread out like a fan, the intervening space being filled in closely with fine threads, making a cover just the size of the nest. This

cover is hollowed upward about an inch, so as to be like a shallow cup inverted over the nest. The connecting threads act like a hinge and join the cover to the nest on the side away from the larger limb. A bird standing on the limb could lift the cover and it would fall again of its own weight as soon as the bird had passed under. Such a cover would screen the contained birds or eggs from the sight of passing birds of prey and furnish a very thorough protection from wind and rain. The query is, had the snake ever been up there before, as would seem to be indicated by there being but one young bird, and was the cover intended as a defense against him?—*W. W. Cooke.*

Two Connecticut Rarities.

Although I have been in the fields but little this season, I have been fortunate enough to come across two birds' nests that I had never found before, although the birds were old acquaintances. I think them rare enough to be worth notice.

The first find was on June 15th, when, seated on a fence at the edge of a piece of swampy woods, a friend and I were watching a pair of Chestnut-sided Warblers that were flitting about in a tree overhead, in hopes that they would betray their nest. Suddenly we heard a sharp "chip" close by, and on looking around saw a little bird hopping along a twig of a barberry bush with an insect in its mouth. The Chestnut-sides were at once forgotten; for within a rod of us was a Blue-winged Yellow Warbler, (*Helminthophaga pinus*). Its mate was close by, and both being uneasy at our presence, kept up their single note of alarm.

For some time we sat motionless, looking at them, and they uneasily moving from bush to bush, not daring to go to the nest while two such suspicious looking characters were near. It was a trial of patience and the birds were beaten. The female (distinguished only by the insect

in her bill) finally began to move off in a new direction, working gradually through the shrubs to an open place where stood a Butternut tree, whose leaves hung black and dry from the effects of the sharp frost of May 30th. Suddenly she disappeared in the grass at the foot of the tree, where we found the nest on the ground, close to the trunk. The female left at our approach, half running and half flying along the ground. The nest was built—outside of dead beech leaves, inside of grapevine bark. Except a single horse-hair there were no other materials in it. It was not concealed well and contained five young birds that must have left the eggs about five days before.

I then took up a position on a rock, about fifteen feet from the nest, and the bird soon became sufficiently accustomed to my presence to make several trips to it. The identification was as good as if I had shot the bird. As I have not been able to visit the spot since, I know nothing further of the history of this rare and interesting family. I trust they will have such pleasant memories of this moist, malarial spot, that they will visit it again next breeding season, although there may be a spark of selfishness in the wish. This is near the northern limit of the breeding place of *Helminthophaga pinus*. The other rarity was taken not over a mile from the first.

I happened to be in the country on the Fourth of July, when a lady said to me that she had a very beautiful bird's nest she would like me to see, and to my surprise brought out a nest I had never seen before, but had heard much about, one which in material and form stands apart from any of our birds' nests. A few pieces of the hanging gray lichen, found so abundantly on dead trees in damp places, were fastened at the upper end to a twig so as to hang closely together, the whole forming a mass about seventeen inches in length and about four in greatest thickness at the top and tapering to a

point at the bottom. The whole shape suggests a long tapering beard of some venerable specimen of the genus *Homo*. At or near the top the fibres were woven to form a pouch-shaped cavity in which was an egg of the Cowbird, which, by the way, often gets its egg in before the owner of the nest. The cavity was hardly over an inch in diameter and about two and one-half in depth.

I was much disappointed not to see the eggs, but the nest was a thing of beauty and the lady generously gave it up in the cause of science. It was found about the 1st of July in a hemlock tree on the bank of the Housatonic River, hanging from a low limb.

Brewer, Minot and Ingersoll have written interesting descriptions of this nest, which is that of the Blue Yellow-backed Warbler (*Parula americana*).—C. K. Averill, Jr., Stratford, Fairfield Co., Ct.

Notes from Rehoboth, Mass.

PART II. PASSERES.

Of the smaller breeders new phases have been opened up. Several varieties have been found breeding quite plentifully which have been considered rare in past seasons, while many common breeders have been quite scarce. Of the latter noticeably are the Blue Jay and Golden-winged Woodpecker, only one set of each being found, while for '83 were recorded twelve sets of the blue thief and fourteen of the "Flicker." The Scarlet Tanager while being by no means rare in former seasons, were common; nine nests being found by a friend and myself in a day's tramp, June 2. They were all in like situations, in small, slender Oak trees, over twenty-five feet up. The nests were slight structures of rootlets, through which the eggs could be seen, and uniform in appearance, as though composed of the same batch of rootlets as it was—and of a light drab in color lined with a few spears of soft grass. The Black-billed Cuckoos

commonly nested in the briar thickets and no set over two in number was found which contained eggs in some stage of incubation. Black-capped Chickadees are common breeders, but especially plentiful this season. One nest found May 30 was placed in a birch stub and composed entirely of Woodcock feathers. It held eight eggs. Downy Woodpeckers plentiful, no set found larger than five eggs, while the "Flickers" found May 24, contained nine fresh eggs. The Red-eyed Vireo, usually plentiful, seemed to have retired to other localities, or else I did not have my usual luck in finding them, as only two nests were found to offset thirteen for '83. On the other hand the White-eyed and Warbling Vireo were much more common than usual. The Brown Thrush and Chewink were also "off" this year, though plentiful in early May. A pair of Wood Thrushes forsook their usual retirement and built their nest in a clump of lilac bushes near the house. This structure met with an untimely end. Passing the nest one day I noticed a cat in close proximity to it, greatly to the consternation of the parent birds. Picking up a stone I hurled it at the intruder. By a mischance it struck the nest, completely demolishing it. The feline, more scared than hurt, fled for the nearest wood with my setter at her heels. But it is the number of sets obtained from species new to this locality that is the most worthy of mention. A friend found and gave me a set of Yellow-billed Cuckoos, taken June 3, three eggs, with the bird shot for identification. Another gave me a set of Blue Golden-winged Warbler, four eggs, also with the female. The nest was bulky for the size of the bird, and composed of grape-vine bark lined with black horse hairs and placed on the ground in small, low bushes at the edge of an open pasture. I found a nest of the Black-throated Green Warbler June 17. It was placed in the crotch of a white

birch in a cedar pasture and contained four fresh eggs. The bird never left the tree when I despoiled her of her treasures, simply flying to the top branches and remaining silent. These warblers are commonly heard in summer in our pineries, but this is the first local nest I have found. July 4, found the nest of the Nashville Warbler with three young at the base of a tree in a grove of oaks, and noticed that the female would often dart in the air after the manner of Flycatchers and carry the result to her young, showing she was successful in her efforts.

Chestnut-sided Warblers common; nest found June 17, with four eggs, slightly incubated. This nest was placed in a clump of wild rose bushes. Two nests of the Blue Yellow-back Warbler were found July 4, each with four fresh eggs, and both nests in the same moss covered juniper. B. and W. Creeping Warblers were noticed as common, yet no nests have been found. Redstarts are not observed commonly, but their nests are frequently found, no less than seven having been taken this year. A pair of Yellow-breasted Chats resort to the same "briar corner" in a small pasture for the past few seasons. This year a Cowbird's egg was found with three of the Chat's in an old nest repaired with strips of cloth.

Another new find was made by a friend of a Great-crested Flycatcher in a hollow apple tree limb. The nest contained, June 27, a set of four fresh eggs; the bird was taken, so no mistake was possible, yet the nest did not contain the traditional snake skin. In a not far distant meadow a colony of L. B. Marsh Wrens are growing beautifully less each year. Half a dozen pairs remain in place of fully a hundred ten years ago. Have found sets of eight eggs as a common rule, but have not disturbed them this year. The hand of fate seems to be against them, or else they have betaken themselves to fairer fields and greener pastures.—*F. H. C.*

Birds of the "Panhandle," W. Va.

THE JOURNAL OF REV. W. E. HILL FROM JANUARY TO JUNE,
(INCLUSIVE) 1883.

PART VII.—CONCLUSION.

JUNE 6. During an early morning walk observed the Robin, the Catbird, the Rose-breasted Grosbeak and many other birds feeding on the Seventeen Year Locusts which have recently appeared in this locality in great abundance, in many cases taking them on the wing. My walk took me by the way of the nest of the Rosebreast, (*Zamelodia ludoviciana*), previously noted, and I was interested in finding the male gallantly relieving his mate in the monotonous duties of incubation, nor did he prove unfaithful to his trust, never quitting the nest, although I approached to the very foot of the bush holding it.

Identified the Yellow-billed Cuckoo, (*Coccyzus americanus*), a new addition to my list. See previous entry for description.

The High-hole, another name for the Golden-winged Woodpeckers, was doubtless first so called from an idea that it always located its nesting-holes high up in a tree. I came across one of these to-day containing young, in a stump not six feet high or more than eight inches in diameter, and only about twenty inches from the ground.

There are no nests in all our woods so numerous as those of the Wood Thrush. I counted to-day as many as half a dozen within a limited bound, all containing eggs or young.

There is a no more eccentric bird than the Robin in its choice of a nesting-site. I observed a nest to-day that was located on the top rail of a fence by the roadside, and only partially sheltered by a "lock" rail. Another, I recently saw, was saddled to a limb no thicker than a man's wrist, and fully forty feet from the ground. Another was placed in the crotch of an apple tree in my orchard but two feet from the ground. Still another in the early spring was built squarely on the sill of a second story window of my house, but slightly protected by a grape-vine.

This evening noted a pair of Cedar-birds or Cherry-birds, (*Ampelis cedrorum*), in my orchard. Shot the male for a specimen before I observed they had begun to build a nest in an apple tree.

JUNE 7. During a hasty drive, along the (Ohio) river-road opposite to the town of East Liverpool, O., near to the foot of the "Virginia hills," very steep and heavily timbered, the most abundant bird I met with was the Rose-breasted Grosbeak; was surprised to find them in such numbers. At least two of their nests came under my observation. Saw also several individuals of the American Redstart and one nest. This nest was placed in a naked, outstretching limb, almost barren of leaves, some thirty feet from the ground. It seemed to be a small and compact structure, the whole head and tail of the female, occupying the nest, projecting from its edge.

JUNE 12. Found a nest of the Indigo-bird. This was placed in the fork of a maple sprout no thicker than a man's finger, about five feet from the ground, and which in a light wind that was prevailing was swayed almost to the ground. Most writers represent the nest of this bird as a little loosely and slovenly constructed; but this particular nest was certainly not an inferior piece of bird-architecture. It was a little bulky for so small a bird, but neatly and compactly put together, and with certain ornamental features of its own. The outer materials consisted chiefly of dried leaves and light dried weed and grass stalks. There was a thick inner lining of very fine dried grasses with a few white horse hairs. The outside walls were stuccoed with numerous bits of wool, which doubtless met the bird's ideas of

ornamentation. The nest contained two freshly laid eggs, white in color and unmarked.

I visited the Wood Thrush's nest, to which reference was made under date of June 1, as containing two eggs of the Cow-blackbird. It held one young Cowbird, apparently about a week old, which the Thrushes were tending with all the devotion and solicitude, as if it were flesh of their flesh and bone of their bone, and doubtless they never knew any better. Upon approaching the nest, the young bird threw itself out falling like a stone. Endeavored to replace it but it would as often scramble out again, the old birds all the time manifesting all the concern possible for parent birds. From the above facts I arrive at the conclusion that many a Cow-blackbird has been raised by the Thrush, no less than by the Red-eyed Vireo, the Maryland Yellow-throat and the other smaller birds that were long supposed to be the only responsible foster-parents of the Cowbird.

JUNE 14. In making a call upon a friend in the country the nest of the Blue Jay was pointed out by him in a large sugar maple not a hundred feet from the house, placed in the fork of two large limbs fifty feet from the ground. By the aid of a tall ladder I was enabled to reach the lower limbs, when the tree offered no further obstructions to my ascent, but the birds did. They fought me at every step, repeatedly striking my hat with their wings, and finally knocked it from my head. It was not without difficulty I could succeed in parrying their blows aimed at my head and face. Before reaching the nest the young birds, three in number, had all scrambled out, their inexperienced wings carrying them to the ground in safety. The outer walls of the nest, (now before me) are built of coarse sticks and weed stalks, with a layer of mud, giving it solidity and firmness, and the whole lined with fine tortuous stems and rootlets, forming almost a flat bed.

The nest of the House Wren was also pointed out to me, built in the wooden stirrup of an old saddle hanging against the inside wall of a stall. It contained four young birds about ready to leave the nest.

A pair of Bobolinks, (*Dolichonyx oryzivorus*), came under my observation in a large meadow at the side of the road. While these birds are very abundant in some portions of the country, they are rarely seen in this section, and more rarely known to breed, as they seem to have done in this instance. The breeding plumage of the male is black and white. The female, and the male in the fall are a yellowish brown, streaked with black, when they are known as Reedbirds or Ricebirds.

JUNE 15. Observed five Owls all perched in one small Spruce tree in a densely wooded ravine. Shot one of these which proved to be a young, but full grown Screech Owl, (*Scops asio*.)

Shot a Hooded Warbler, (*Myiobius tritratius*), in this same locality. A pair of these birds manifested great alarm at my presence, indicating that they had a nest near by, but a very thick growth of Rhododendron on the steep hillside rendered a search for it impracticable. After shooting the male another made its appearance and joined the widowed female in her cry for a few moments and then disappeared. Thus I had pretty good evidence of at least two pairs of these elegant birds breeding in that locality. The following is a description: above, yellow olive; below, pure yellow; top of the head, neck and throat, jet black; forehead and sides of the head, bright yellow. The black coloring is quite suggestive of a hood, hence its name.

JUNE 19. The nest of the Yellow-billed Cuckoo came under my observation. This was built in a White Oak sprawling, in a small hillside wood near the public road, on a horizontal limb about fifteen feet high, and supported by a cluster of small twigs. It was composed mainly of dead sticks and twigs, with a thin lining of the strips of the outer covering together with the blossoms of certain plants,

the whole loosely constructed and quite shallow. It contained three eggs, nearly globular in shape, and light green in color, with blotches of a darker shade. The female seemed to be brooding, being slow to quit the nest.

JUNE 22. Another nest of the Yellow-billed Cuckoo met my eye. This was placed near to the top of a Spruce tree twenty feet high.

Examined the nest of the Kingbird. This was placed at the fork of an out-reaching limb of a Locust tree in a pasture field, about twenty feet from the ground. It was a very neat and compact structure, composed of rootlets and grasses, and lined with black and white horse hairs. It contained four young birds. Although there is no bird more courageous, and more determined and impetuous in defending its nest and young against the assaults and intrusions of other birds, yet on the approach of any other living object it becomes one of the most cowardly and skulking of birds, always keeping at a good distance, and scarcely daring to utter a chirp.

Observed the Tufted Titmouse carrying food to its young in the hole of a dead tree, about ten feet from the ground, in a small retired wood.

A nest I was interested in finding was that of the Yellow-breasted Chat. It was securely fixed to two or three upright blackberry stalks in the midst of a blackberry and elder thicket, near to a wood. The first or outside materials were dried weed stalks and stems, then a layer of dead leaves, then another of grapevine strips, with a lining of dried grasses. It contained four very pretty eggs with reddish brown specks on a white ground, thicker and heavier on the greater end. This bird is rather abundant throughout this district, and its strange, varied notes may be heard issuing from almost every thicket.

JUNE 23. A nest I came across in a piece of woods was that of the Red-eyed Vireo, which was suspended from a forked twig near the end of a drooping limb of a Hickory tree, about eight feet from the ground. An examination revealed two newly hatched living birds, one dead one, and one egg. One of the two living birds was a Cowbird, much larger than the Vireo, and seemed to be a trifle older. It was undoubtedly the occasion of the death of one young Vireo in the nest, and was just about ready to crowd the other out of it. The single egg remaining was also the Cowbird's.

Under date June 12, I noted the finding of an Indigo bird's nest. I did not state, however, that I killed in the same locality, a few moments later, the female owner, as it proved to be, mistaking her in the dusk of the evening for a strange species of Sparrow. She had laid two eggs, one of which I had removed, leaving one. Passing in the vicinity of this nest to-day I made an examination and found in it three Cowbird's eggs, the single Indigo bird's egg having disappeared. I have never known the Cowbird to be so numerous in any one locality as they have been here this season, and it has been the exception to find a nest of the smaller birds that did not contain one or more of the former's eggs.

JUNE 30. Within the past few days a pair of Cardinal Redbirds built a nest in a grapevine in my back yard, laid but two eggs and the female is now brooding. This is unusual familiarity for this bird to come and nest, as in this instance, within the precincts of a thickly populated village.

Brief Notes.

NEST OF THE MOCKINGBIRD IN CONNECTICUT. Since writing about the Mockingbird's nest, I have learned that there are several other nests in the same locality, and that the birds were seen by many. A farmer's boy showed me two eggs that he collected, and he reported having seen

young birds. He showed me one of the nests, which was exactly like the one taken by Dr. Jennings and myself. Perhaps they will all come back to this region next season.—C. E. Prior.

A QUEER NESTING PLACE. A few days ago, while looking over the new Slater Library building now in process of construction in this place, the foreman called my attention to a Bluebird's nest that had been placed between a window-frame and the casing. It was just out of reach, and was very near the main entrance where the workmen were going in and out, carrying brick, stone and mortar from morning till night. The female bird rarely left the nest, and then only for a short time. The nest had no covering and the bird could be plainly seen from the street. She was as confiding a specimen as I ever saw, and her confidence was not misplaced, for the workmen were very proud of their feathered protégé, and championed her cause from the first. At the date of this writing she has hatched her young and is busily engaged feeding them.

AUG. 20. I want to say that the Bluebirds of which I wrote you recently, were birds of rare firmness and pluck. As the Library building progressed, it became necessary to move the nest containing the unfledged birds, so the foreman found a small box and placed the nest and young in it, leaving it in a conspicuous place. The old birds seemed to understand the proceedings and governed themselves accordingly, finishing their labor of love and sending out into the world a family of birds that will no doubt reflect credit upon their parents.—Chas. Edu. Prior, Jewett City.

WOOD IBIS, (*Tantalus toculator*). There were shot about ten days ago and sent here to be mounted, three fine specimens of the Wood Ibis. They were shot in the neighborhood of Elizabethtown, Lancaster Co., this state, between eighty and eighty-five miles from here. The occurrence is so rare that I thought it would be worthy of note.—H. J. Sherratt, Philadelphia, Pa., July 20.

NEST OF CHEWINK. In reply to query by Job Barnard, August O. and O. In May, 1879, I saw a nest of this bird hid in a hazel thicket about three feet from the ground, with four fresh eggs. The only nest I ever left for more eggs was at once forsaken by the parents. It is a favorite Cowbird's nest here, three sets being composed of one Chewink's and three Cowbird's, two and three Cowbird's and three and two Cowbird's. These marauders are probably as abundant here in the breeding season, as anywhere on the continent, and there are nests in which it is the exception to find none of their eggs.—W. E. Saunders, London, Can.

I have known of two Chewink's nests being built above the ground. One in August at Coldbrook Springs, Mass., in a pine six feet from the ground; the other found by my friend, Mr. E. W. Nelson, on Fox Prairie, Ill., was in a tangle of bushes about three feet above the ground.—Fred. T. Jencks, Providence, R. I.

ENTOMOLOGY. I would like to ask my fellow entomologists throughout the country, if they notice an unusual scarcity of summer Lepidoptera this year as compared with others, and if so, what is the cause? There are but very few in this section of those that were plentiful last summer. The spring flies, such as *Colyomatus cseudargiolus*, *P. Lucia*, *P. Comyntas*, *Vanessa*, &c., were abundant, but the later ones as *Asterias*, *Troilus*, *Idalia*, *Aphrodite*, *Cybele*, *Atalanta*, &c., are quite rare. The same remark applies to moths, with the exception of *Sesia pelasgus* and *Micro-Lepidoptera*. On the 17th of June, near South Braintree, Mass., I took a number of fine specimens of *Miltiae chaston* (always a rare fly from the fact of its being extremely local.) *Coleoptera* seem to have shared the same fate as *Lepidoptera*. Some of my friends attribute the scarcity to the cold winter and wet spring; but I maintain that the fatality was last fall. I base my opinion on the

great scarcity of chrysalides. As I am only an amateur, I should be pleased to hear from more experienced collectors on this subject. I am glad to see that you have added an Entomological Department to your already valuable publication as it will materially assist us in getting acquainted and making exchanges.—*J. A. Wright, 73 Hanover St., Boston, Mass.*

I take pleasure in stating for the benefit of those engaged in Entomology, that I have taken (last July), a fine specimen of *Iphiclus ajax*, of the form *Marcellus*. I never before heard of one being seen so far north. I have taken many fine ones in Florida, but none finer than the one taken here in Michigan. I saw a number of them about here in March and April of the form *Walshii*; and although I have collected for twenty years, I never met with them before until this season.—*A. H. Boies, Hudson, Mich.*

BLEACHING BUTTERFLIES, &c. I use two basins of water, one containing weak chloride of lime and the other, one or two drops of sulphuric acid for bleaching white skins, grasses, feathers and butterflies. Butterflies prepared by this process make exquisite subjects for the stereopticon.—*Walter Hoxie, Frogmore, S. C.*

CORRESPONDENCE.

THE DESTRUCTION OF BIRDS FOR MILLINERY PURPOSES. A REQUEST FOR FACTS. *Editor of the Ornithologist:*—
Sir: I have been much interested for the past year or two in reading the sentimental effusions that from time to time have been published in the different papers and periodicals, lugubriously lamenting the destruction of birds by taxidermists and collectors. The perusal of these various articles has excited my risibilities not a little, and enlisted my sympathies for the—writers, at the exhibition of their utter ignorance of the subject they were expending so much sentiment and so few facts upon. I had about brought myself to believe that the sum and substance of the *craze*, for I can call it nothing else, was that the writers thought it to be “quite the thing” to launch out in print and defend the “dear, sweet little songsters” that those horrid taxidermists, and awful boys were killing in such vast numbers. They hoped thereby to gain an approving recognition from some fair damsel or maiden aunt as great benefactors of the public, sure to take high rank as newspaper correspondents; possibly doing as one genius did that I know of, who bought a large number of the papers containing his voluminous contribution of sweet sentiment, and by aid of the mail scattered them broadcast, the articles scored with carmine ink and marginal note of “a few ideas jotted down in haste.” These gentle idiots we could tolerate in silence, but when we are awakened to the dread reality that a new champion, backed by the formidable label, “U. S. National Museum, Washington, D. C.,” arises, we really feel quite “shaky,” fearful that now the whole matter will be settled, for the U. S. National Museum speaks. But our fears are groundless, we find after perusing the article, for the gist of the whole matter lies in the author’s declaration, “I unhesitatingly affirm that man *does* destroy far more birds than do the birds of prey.” Well now, Mr. Editor, that affirmation, unhesitatingly made, as it may be, is not backed up by anything in the article to show *why* such a declaration is correct, unless it be that the writer, being a taxidermist in the U. S. National Museum, *ought* to know and, ergo, *does* know that the statement he makes is correct. Is he correct? I shall not “unhesitatingly affirm” that he is not, but I want him to give something more than his simple assertion before I can believe it. Come, Mr. Lucas, tell us what insectivorous birds are so largely used for millinery purposes, and something of the number, approximate of course, if you can. Tell us about those boys

who are anxious to have a collection of eggs, and about what damage they do in getting them; in fine tell us all about this matter. But do not, I beg of you, fall into the error of enumerating the insects “plus their progeny,” for while it may be “a fact of importance,” remember the great poet says:

“Little fleas have lesser fleas, and so ad infinitum.”

That portion of the subject might get distracting in the computation, like some of Col. Sellers’ imaginations. While there might be “millions of it,” we can afford to let it pass and confine ourselves to the main question.

Tell us, also, why it is that this “machinery of nature” does not get out of balance if so “nicely adjusted,” when so great a destruction has taken place, not for the past few years but from the most remote time in history; for feathers have been used from time immemorial, the beautiful feather shawls, wraps, and head dresses of the Mexicans and Peruvians for example. Give us all the light by way of *facts*, or conclusions arrived at from certain facts well established, and it may be you can convince some of us sceptics that we are wrong. At any rate, it may open a door for us to show that *you are mistaken*, but don’t I pray you, jar our nerves by the thought that an annex to the Smithsonian has entered the lists against us and demands that we must receive its “unhesitating affirmation,” as the law and the gospel, and not be permitted to take it *cum grano salis*. I am sure the readers of O. and O., will join with me when I make the assertion that no good naturalist will destroy life wantonly, but those who are studying nature, and following her through many and devious paths in search of a more intimate knowledge of her workings, do not wish to be trammelled by unnecessary or unjust laws passed by law makers who have only heard the whine of many whose only enjoyment in life is carping at others, and posing as great public benefactors, when the truth is, they are notorious humbugs who only take the position they do because of its bringing them a little cheap notoriety. No one deprecates more than I the killing of our birds for millinery purposes, but the truth is, I think, when the matter is fully investigated that there is “a great cry over a very little wool,” and if naturalists would combine and present the true facts to the law makers, different laws from those now on the statute books would be the result, affording better protection to the birds, and more freedom to the ardent naturalist. It is not to be wondered at that our legislators, knowing but little of the true facts, and confronted by these many self-sufficient, unsubstantiated affirmations on the one side, and an indifference upon the other, have been led into making unwise laws. It is to be hoped that in the near future the laws may be so amended that the enthusiastic naturalist may be protected in his work and the birds fully protected also. If I have not exhausted all of your patience, when Mr. Lucas gives us the light I have asked for, I will try and show the fallacy of his statements.

W. W. C., Boston, Mass.

GOLDEN-CROWNED KINGLET. *J. P. Loose, Hagerstown, Md.*, writes that he found a female Golden-crown on July 22, and asks if this is not very rare.

W. E. Fowler, Spartanburg, S. C. The nest and eggs you send us for identification belong to the Black-throated Bunting, (*Spiza americana*).

ILLINOIS LAWS ABOUT BIRD COLLECTING. *W. Ingram, Odin, Ill.*, asks what are the laws of Illinois about bird-collecting. Will some of our correspondents answer his question?

Walter Hoxie, W. E. Saunders. We shall be glad to receive articles that you may think suitable.

Received.—*Court W. Ranslow; S. R. Ingersoll.*

Nos. 1 and 2 of “The Young Mineralogist,” received.

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No. 10.

Migration in the Mississippi Valley.

CAPE MAY WARBLER, (*Perissoglossa tigrina*).—East of the Mississippi is the home of the Cape May, and any record west of there used to be considered as certainly accidental. As more than two-thirds of the notes of last spring on this species came from the western side, the query arises, is the species moving westward. Throughout most of the East it is rather rare, but in central Wisconsin it has been found in great numbers, hundreds seen in a day; and in Minnesota it is given as very common in migration. It both breeds and winters beyond our borders. The most southwestern of the records is that at Pierce City, Mo., 36⁵⁶, where it was found April 27. It reached 42° on May 5. On May 11 it was taken at West De Pere, Wis., 44²⁶, and by the 23rd it had arrived at Elk River, Minn., 45²⁵; a female was taken at Lanesboro, Minn., 43⁴³, on May 21. It was also taken in Iowa, but the most interesting record is its occurrence in Nebraska. Mr. Powell writes that at Alda, 40⁵⁸, on May 12, 1883, he took an old male in good plumage, and a few days later three more were probably seen.

SNOW BUNTING, (*Plectrophanes nivalis*). From their breeding places within the Arctic circle, these warm-blooded Snowflakes come in countless thousands and many a dreary landscape do they beautify and enliven with the quick flashing of their wings and their cheery chatter. They invade all of our district north of 39° and less often to 35°, being replaced there by

the Lapland Longspur. At St. Louis they have never been seen. At Whitehall, Ill., they stayed until March 24th. A little farther north, around 42° and 43°, they were seen as late as April 17th, though the bulk left the first week in April. At 45° the bulk left about the same time, but it was nearly May 1st before the last one departed; while at Portage La Prairie, Manitoba, 50°, they did not depart until May 25th, and on previous years have been seen as late as June 22d when the weather was very hot.

LAPLAND LONGSPUR, (*Centrophanes lapponicus*). As has already been stated, the Mississippi Valley below the range of the Snow Bunting is occupied by the Longspur. The limit of the known southern range of this species has been carried farther south until we now know that it penetrates to Texas, where it has been found at Gainesville, leaving there last Spring about March 1st. Their mode of occurrence last winter at Caddo, Indian Territory, may be taken as a fair sample of the way these rovers come and go at their own pleasure. None were seen there until a sudden cold snap in February covered everything with frozen rain. Horned Larks, Smith's Longspurs, Chestnut-collared Buntings became abundant, and on February 13th three Lapland Longspurs were seen. Starting out the next day to secure some of their skins, I suddenly found myself surrounded by hundreds and hundreds of them. They swarmed around us for a week until on the night of the 19th, taking advantage of a clear sky and a south wind, they, in com-

pany with all their long-clawed brethren disappeared as suddenly as they had come. In Kansas they were very numerous about the same time, and a month later Nebraska was the scene of action for the evolutions of their mighty armies. In northern Minnesota, they disappear during the winter to give place to the Snow Buntings, and the first ones returned to Frazee City, on March 9th. The last one left Manhattan, Kan., the 22d of March, while as late as April 19th, thousands were seen at Chicago, but left almost immediately.

SMITH'S LONGSPUR, (*Centrophanes pictus*). This is another Longspur whose winter journeyings have been lately discovered to extend to Texas. Mr. Ragsdale has found them to be present at Gainesville, Tex., during several winters. Last Spring the bulk left March 5th, and one was seen April 1st. A little to the northeast of this, at Caddo, Indian Territory, they were found to be an abundant and apparently regular winter visitor. Two flocks and many scattered ones were seen November 17th, before there was hardly a sign of approaching winter, the leaves not all fallen from the trees; and they stayed through hot and cold; ice, snow and rain, until the bulk left February 19th, and the last one on the 26th. East of the Mississippi it extends in winter to the prairie regions of southern Wisconsin and northern Illinois, but its true home is the extensive plains of the west and northwest. It does not breed within our limits. At Caddo a fine male was shot while sitting on a tree, the only one that was ever seen to alight elsewhere than on the ground.

CHESTNUT-COLLARED LONGSPUR, (*Centrophanes ornatus*). This is one of the most abundant birds of the western plains, found resident in Kansas and Nebraska, breeding north to high latitudes in summer and wandering to southeastern Texas and Old Mexico in winter. The most southeastern record is probably Caddo,

Indian Territory, where it was seen the middle of last February in company with *C. pictus* and *lapponicus*. A question of the use and meaning of ornithological terms arises in connections with this and the following species. Mr. N. C. Brown in his "Reconnoissance in Southwestern Texas," (Bull. Nutt. Orn. Club VII. 1882, pp. 37 and 38,) says that these two species *C. ornatus* and *R. macconnii*, do not winter there, because not found until February, and that the latter species is an "uncommon migrant, taken between February 11th and 21st." In our Mississippi Valley work we would call both of these species, "winter visitants," restricting the term "migrant" or "transient," which two terms we use as synonymous, to those birds which are found only as they pass through from a more southern to a more northern dwelling place, or vice versa.

At Gainesville, Tex., the bulk of the Chestnut-collared began to leave March 12th, and the last was seen April 24th.

McCOWN'S LONGSPUR, (*Rhyncophanes macconnii*). This Longspur is more emphatically a bird of the western plains than any of the preceding. There is only one record of occurrence east of the Mississippi; it having been found accidentally at Champaign, Ill. The ordinary eastern limit is western Kansas, Nebraska and Texas. Nor does it proceed so far north; the Black Hills are about the northern limit. It was found the past winter at Caddo, Indian Territory, on January 19th, and at Gainesville, Tex., is marked, winter resident, leaving March 12th. A small flock was also seen on the 26th, an unusually late date for this species. At Ellis, Kan., they were found as a winter resident and abundant in migration, but whether they breed has not yet been decided.—W. W. Cooke, *Caddo, Ind., Ter.*

The attention of our readers is called to the publisher's announcements which appear in our advertising pages.

Ruby-throated Humming Birds.

(Trochilus columbris.)

One warm afternoon, (16th of June, 1874), I was collecting insects in Buffalo grove near this place, and becoming tired, had lain down to rest in the cool shade of a large oak. While lounging there, half asleep, my attention was suddenly attracted by a loud humming noise which I thought to come from a large beetle. In a moment I was on the alert, but could see nothing, and the noise quickly ceased, but in a moment it was repeated, and continued for about fifteen seconds. In this way the noise alternated for some time. At times it would appear very close, then some rods away. Finally Madam Ruby-throat, for it was she, came within a few feet of my face and darted away to a large Butternut, settling on what appeared to be a knot on a dead limb about fifteen feet from the trunk of the tree. She only remained there a few seconds, when she returned to me and darted at my face several times, and then returned to her seat on the dead limb. This was done four different times, and then I began to get the idea that that knot on the dead limb was a nest I had so often longed to see, and which I had spent many long hours searching for. It was but the work of an instant to climb some distance above so that the inside of the nest could be plainly seen. There on their snow white bed were two beautiful white eggs, which I have since shown to many admiring friends with pleasure.

To get them safely to the ground was going to be a very difficult task, as the nest was fully twenty feet from the ground and the limb a slender one. The task, however, was accomplished by the aid of two long ladders tied together at the top. By standing on the top rung the nest could just be reached, and by making three trips the nest and eggs were brought safely to the ground. Incubation had just commenced. The nest was such a one as

only the Hummingbird can make, being composed of the soft down of the cottonwood seed and covered with lichens, after the manner of the Wood Pewee. All the time we were around or near the nest, the female was ready at all times to show her pugilistic qualities by darting at our eyes and clirping, loudly for so small a thing. It seemed mean to rob the poor little thing of her treasures after she had defended them so bravely, and can only offer the old excuse—"The ends of science."

Three years later another nest was found in a ravine in a very remote part of the woods. At this particular place Hummingbirds had been very plentiful since their arrival in May; so early in the morning of June 18th, I set out to find a nest if possible. The banks of the ravine were very steep and thickly wooded. A stream at one time had found its way through the bottom. Dead trees were numerous—a more desolate place would be hard to find.

As I was passing along, a Hummingbird came buzzing about my head a moment and then darted away. Thinking she would return, I sat down on a large stone, and had scarcely waited a minute, when she returned and flew at me a few times, and left as before. This time by close watching I saw her fly into the top of a dead Oak which I went to, and easily found the nest. It was placed on the upper side of a small limb where it forked, and was about thirty feet from the ground. After climbing to the nest, I sat on a large limb two feet from it. While in this position, the bird would fly very close to my head, remaining at the same place in the air for several seconds, chirping loudly all the time. Her notes consisted of one syllable, sometimes uttered two or three times in quick succession—something like twéét, twéét. She would even alight on her nest when it was within easy reach of me, and remain there until my hand was within four inches of her, when she would leave the nest quickly. This nest was built of down

of cotton-wood and covered with lichens.

My facilities for observing these birds have been limited until the present season (1884.) This year I saw the first pair on May 12th. They were seen early in the morning and remained about the yard every day. Their number constantly increased until May 20, when the bulk had arrived. During the month of June, I passed daily through a piece of woods for a distance of eighty rods. On the morning of June 11th, on throwing a stick to flush a Wood Pewee from her nest, a loud hum was heard, and after a search of ten minutes, the nest of the Ruby-throat was found on the extreme end of a dead limb, thirty feet from the ground. To get this set I sawed off the limb, which was fifteen feet long, but the weight was too great, and both eggs fell out and were broken.

The next morning, June 12th, found me a few rods from the same place on my morning's hunt as usual. My attention was attracted by a pair of these birds engaged in mortal combat with a Red-eyed Vireo in the top of one of the loftiest trees. Their tweet, tweet, could be plainly heard as they darted to and fro at the Vireo. The fight was a very interesting one, for what the one lacked in size and strength was more than made up in activity. At times the Vireo would utter loud cries and fly at his assailants, but it was of no avail—he was forced by his dwarfish enemies to vacate that particular part of the woods. Being satisfied that a nest was not far off I searched carefully for an hour but could not find it. Next morning I visited the place again and found all quiet except several noisy Rose-breasted Grosbeaks hard by, and a Wood Thrush farther down the glen. After waiting and watching closely for fifteen minutes the noises of the day before were heard in the same tree, and on looking both Hummers were again giving the Vireo to understand that they had homesteaded there, and it was no use for him to try and "jump their claim." The

fight lasted about a minute, with the same results as before. I easily found the nest, near the trunk of the tree, fully forty-five feet from the ground, and placed $3\frac{1}{2}$ feet from the trunk on a very slender twig. It was nicely shaded by a cluster of oak leaves and could not possibly have been seen from the ground. It contained two fresh eggs, and was the most beautiful of any of the nests I had yet found. The nest was placed where the twig forked and looked as if it had been completed and the twigs pushed through the bottom part to sustain it. The walls were very thin, and on the outside the lichens were so nicely fitted together that the surface was smooth as paper. The birds acted very much as did the others. I showed a friend who thought he was pretty good at finding nests, the tree on which the third nest was placed, and after a search of ten minutes he gave it up, which goes to show how hard the nests are to see. The right way is to look for the birds and watch them. A braver bird to defend her nest would be hard to find than the little Ruby-throated Humming Bird. — *Horace A. Kline, Polo, Ill.*

Notes from Denver, Colorado.

BOHEMIAN WAXWING, (*Ampelis garrulus*.) I have never noticed the Bohemian Waxwing in this locality until the 22d of March of this year. A small flock containing ten individuals was seen on the Platte River, eight of which were shot. They were feeding on the seeds of the wild Rose.

HOUSE FINCH, (*Carpodacus frontalis*.) During the past winter the House Finches were abundant on the Platte River, where they enlivened the bare woods with their song. Towards spring, however, they nearly all disappeared, and I have hardly seen an individual the summer through, although they were quite common during the summer of '83, at which season I found several nests. The eggs are three or four

in number, of a bluish green ground color, some specimens having a few black spots near the larger end, while others have a number of blotches and spots of a light and dark brown color.

SAY'S FLYCATCHER, (*Sayornis sayi*.) This bird is not much seen except by those interested in bird life. It is a rather solitary species, generally seen about old walls, fields and fences. In all my observations I have never seen one frequenting woodland. Say's Flycatcher is one of our early arrivals in the spring, appearing about the 10th of April. It has a very mournful note, which it utters at intervals throughout the day. I have seen them eject pellets from their throats in the same manner as do the owls. I have never found it breeding before the past season, when a single nest was found on a beam of an old building near the city. I had seen a bird in the vicinity a few days before and mistrusted that there was a nest near the place. On the 17th of June, I sallied forth and after about an hour's watching discovered the nest in the place mentioned. The nest was flattened on one side where it came in contact with the side of the building, otherwise it was in the shape of a sugar-loaf, with a cavity in the top for the eggs. The body of the nest was composed of grass-roots, thread and bits of hemp, the inside of cotton-wood feathers, the outside skin of grasses and a few horse hairs. Outside measurements—long diam. 7 ins., short diam. 4 ins., height $2\frac{1}{2}$ ins. Inside measurements—diam. $2\frac{3}{4}$ ins., depth $1\frac{3}{4}$ ins.

The eggs were five in number, pure white. Incubation $\frac{1}{2}$. Both birds took part in incubation.—*H. G. Smith, Jr., Denver, Colorado.*

The Sparrow Hawk.
(*Tinnunculus sparverius*.)

This handsome little Hawk is abundant and breeds plentifully in old decayed stumps and trunks of trees, generally in

some deserted Flicker's hole. I have taken a large number of their eggs this year. From one nest I obtained seven eggs at different times, although the complete clutch consists as a rule of four. On May 29th I found the above mentioned nest in the decayed trunk of a cottonwood tree so badly decayed that I could not trust to climbing, so I pushed it over, letting it fall against a clump of birches where it remained standing at an angle of forty degrees from its original position, where I could easily reach the nest. The eggs, of which there were three, were laid in the hole of a Red-shafted Flicker, (*Colaptes auratus mexicanus*), upon the chips left by the former occupant. I took these eggs and on the 1st of June visited the nest again and found another egg, which I took. On June 7th, finding the birds were still in the vicinity, I climbed to the nest once more and to my surprise found the female on, nor would she move for me, but kept her head buried in her breast. Being greatly surprised and somewhat taken aback by such actions, I wrapped my handkerchief about my hand, and after turning her over in the nest, pulled her legs through and transferred the handkerchief to the legs of the bird, tying it in a knot, then I drew her through and found three more eggs. On reaching the ground I examined my bird and, sorry to relate, I had broken the eighth egg in the bird, which of course accounted for her staying on the nest so long. The eggs of this bird vary greatly both in color and shape. In most specimens the ground color seems to be white, more or less spotted and blotched with burnt umber, this color completely covering one end, but it seems immaterial to the bird which end. In other specimens the burnt umber entirely covers the ground color. Even the eggs of the same clutch show a great difference in markings. Some eggs are nearly spherical, others are elongated and pointed.—*Chas. T. Morrison, Fort McKinney, Wyo. Ter.*

THE
ORNITHOLOGIST
 —AND—
OÖLOGIST.

A MONTHLY MAGAZINE OF

NATURAL HISTORY,
 ESPECIALLY DEVOTED TO THE STUDY OF
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THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
 AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
 PAWTUCKET, R. I.

Editor's Notes.

Dr. Elliott Coues has returned from his visit to Europe. He reports having had a pleasant and successful trip.

Among the prominent scientists who have crossed the Atlantic this year to attend the meeting of the British Association at Montreal, is Dr. P. L. Sclater, Secretary of the London Zoological Society, and for many years editor of the Ornithological Journal, the *Ibis*.

An inquiry in our August number respecting the nest of the Chewink has elicited a number of replies from which it appears safe to come to the conclusion of Mr. D. E. Lantz, (page 127) that while the *early* nests are almost invariably on the ground, the *second* nests are as commonly in low bushes. This probably arises from the thickening of the foliage as the summer advances.

A correspondent asks us whether we cannot stir up some of the old contributors to the O. and O. whose contributions used so frequently to find a place in its columns. He thinks we should also have "a paper now and then" from a well known Pacific coast collector, "on the wonderful collecting tours he has made in California,

South, North and East; from the mountains of Nevada to the lakes, rivers and plains of Oregon and Washington Territory." We can only say it will be a pleasure to us to insert such communications.

One of the most complete Ornithological collections in the world is that made by the late Greene Smith of Peterboro, N. Y. Among the Hummingbirds are specimens said to be in no other collection in the world. This portion alone is valued at \$75,000. The whole was offered to New York City four years ago and refused by the Park Commissioners in their ignorance of its value. Now they are anxious to have it and the family decline to give it up to them.

Sickle-billed Thrush, or California Thrasher.

Harporrynchus redivivus (*Gamb.*)

I first saw this bird in the coast range of mountains back of Menlo Park, California, in August and September of 1880. It was quite abundant and I shot several, but all were in poor plumage at that time. It was only to be seen in the dense undergrowth that fringed the banks of the streams a few miles south of San Francisco. Mr. Ingersoll says in his work "Nests and Eggs of North American Birds," page 29, "The music of this bird is confined to the coast region of Southern California where it resides the year round." But its range extends as far north as Menlo Park on San Francisco Bay and perhaps farther. I believe it is confined to the coast range, as I have never seen it in the Sierra Nevada or the central part of the State, and Mr. Emerson of Haywards informs me that it is not found on the eastern side of the same bay. In my opinion this bird is resident for a considerable part of the year in the neighborhood of San Jose, for on my second visit to California in May, 1881, when within a few miles of the city, I saw a number and had the good fortune to find one

nest. It was placed in low thick bushes, about two and one-half feet from the ground. I saw the parent bird slip noiselessly from the nest as I approached it, and she at once took herself into some thick bushes on the other side of a small stream near which the nest was placed. I stood back and waited her return; but while I remained in sight she did not come and it was not till I had gone some distance up the stream and returned an hour or so afterwards, that I again saw her leave the nest in the same noiseless manner. The outer portion of the nest was composed of large sticks and roots loosely placed and lined with fine rootlets. It measured 6 inches outside, 3 inside, $2\frac{1}{2}$ deep. There were three eggs which are now in my cabinet, measuring as follows: No. 1 is 1 2-16 in. \times 14-16 in. No. 2 is 1 3-16 in. \times 14-16 in. No. 3 is 1 4-16 in. \times 14-16 in. They are of a light bluish green, with faint reddish brown specks scattered pretty well over the surface but thickest near the larger end. The eggs resemble those of the Steller's Jay, but are smaller.—*S. W. Denton, Wellesley, Mass.*

more, prior to 1878, both taken near Cincinnati. This, Mr. Dury remarks, is the only record, extending over a period of more than seventeen years, that we have of their occurrence in southern Ohio.

In the summer of 1879, a friend informed me that he had a few days before shot a strange Owl. From his description of the bird I knew at once that it did not answer to the size, coloration and markings of our common Owls. I lost no time in going to see it, and after fishing it out of the creek where it had been thrown, I was delighted to find it to be a fine specimen of this rare Owl. Warm weather and flies had done their work well, but notwithstanding its "ripeness" it was after much patience and care converted into a passable skin. In 1880, Mr. Markley took an adult male at Foster's Landing, on the Ohio River, thirty-six miles above Cincinnati. From the interior of the State but two are recorded. One near Columbus, in 1878, and the other at Circleville, in the summer of 1873. This, I think, completes the list, and gives a total of seven individuals, taken in a period of twenty-two years within the entire limits of the state.

But whatever degree of rarity may have marked its occurrence heretofore, the past year has made full and ample reparation, especially as far as southern Ohio is concerned. Here is the list. On October 18, '83, a fine specimen of *Strix flammea* was brought to me by a farmer. This individual was taken in an apple orchard near some grain sheds. The 15th of December another was killed. This one I did not secure, as it was utilized for millinery purposes by one of our rural belles. Two more were added to the list on December 22d, a third one escaping. A deep snow covered the ground at this time. These were taken near the Miami river. The day before Christmas the fifth was killed in an open grain shed. Another was added to my collection January 12th, and the seventh and last on January 22d, 1884. Here then

The American Barn Owl in Ohio.

The Barn Owl has been heretofore considered an extremely rare visitor in Ohio. Many excellent ornithological collections of Ohio birds, have been made within the limits of the State, but few indeed are those who are so fortunate as to include in their series of Owls an Ohio specimen of *Strix flammea*.

In Dr. Wheaton's exceedingly valuable report of the "Birds of Ohio," incorporated in Volume IV of the Geological Survey of Ohio, he says: "Rare visitor." "Not over half a dozen individuals recorded." The year 1861 marks its first known positive occurrence and capture, although it was supposed before this that it was an occasional straggling visitor in Ohio. Mr. Chas. Dury records the capture of two

in a period of a little over three months, I was so fortunate as to secure as many individuals of this species as had been taken in the previous twenty-two years. The seven, too, were taken within a mile and a half of here. Of the two taken on December 22d, one was but slightly wounded. This I placed in a small room of the house. I had here an excellent opportunity of observing it, and was much amused at its comical attitudes. Each time the door was opened for a peep at his owlship, he would lower his head until it almost reached the floor, move it slowly and constantly from side to side, roll up his dark brown deep sunk shining eyes in the most solemn manner. This performance was repeated each time the door was opened. I handled him frequently before sacrificing him to science, and at no time did he offer resistance with his talons after the manner of Raptatorial birds, (and I assure you his talons were formidable enough,) but confined his line of defense to his bill alone.

The Barn Owl is undoubtedly a very useful bird to the farmer, having as it has an almost unlimited penchant for rats and mice. Two or three pairs of these birds would in the course of a year destroy many hundreds of these pests that infest our barns and grain sheds. I quote the following from Mr. Dury's article on the Barn Owl in the Cincinnati Natural History Journal. "On going up into the tower of the 'Town Hall' of the village of Glendale," (where several of these owls were secured the past year,) "I was astonished at the sight presented. The floor and ledges were covered with the cast up pellets of the birds. There were hundreds of these pellets, and must have contained the debris of several thousand rats and mice." This is certainly evidence of the economic value of these birds. Mr. Dury also states that he found them living in harmony with several pairs of tame pigeons which had their quarters in the tower.

—R. T. Shepherd, Monroe, Ohio.

Yellow Warbler vs. Cowbird.

In the O. and O. of March, (Vol. ix, page 34,) Mr. C. R. Keyes mentions having found a Scarlet Tanager's (*P. rubra*) nest with a Cowbird's (*M. Pecoris*) egg embedded in the bottom. This recalls to mind a Yellow Warbler's (*D. aestiva*) nest found by me at Fort Laramie in 1880, which shows how persistent these birds are sometimes in trying to evade hatching the eggs of the Cowbird; but in this case the *pecoris* got the better of the *aestiva* in the end. The nest was placed in a rose-bush, when, after laying one egg, two Cowbird's eggs were deposited in it. The *aestiva* immediately went to work and built another nest on the top of these eggs; but after laying two eggs another egg of the Cowbird was left in her care. Still being determined not to be the foster mother to these strangers, she added another story to her already large nest. After laying three eggs her nest was again visited by the Cowbird and two eggs left there. Her little heart failed her this time and she submitted to what seemed to her to be inevitable and commenced incubation. I had not the heart to take her nest at this time. In due course the young were hatched and to my surprise the Cowbirds were the first to see light, and they formed quite a nest full of themselves. But when the young warblers were hatched, I unceremoniously tumbled the Cowbirds out. The old birds did not seem much pleased with my actions. Still as I from a child always took the part of the weak side I felt as if I had done my duty. When the young had flown I secured the nest together with the eggs in the two lower stories of this queer house, and it is now in my possession. These eggs were still as fresh as if just laid. A friend of mine took a nest of the same bird in Worcester, Mass., in 1872, of two stories.—*Chas. T. Morrison, Fort McKinney, Wyoming Territory.*

Notes from Rehoboth, Mass.

PART III. WATER BIRDS.

This season's observations among the few varieties of "Water Birds" which may be found in this vicinity, developed no unusual facts of interest, no new species being noticed, and the regular frequenters pursuing, so far as observed, the same methods of housekeeping as in former seasons.

May 2d, while Perch fishing on Palmer's river, I found two nests of the Wood Duck, both in hollow "Buttonwoods" with a surprisingly small entrance for the size of the Duck. These same trees have been occupied by this species of Duck ever since my acquaintance with the locality, some five years or more. The sets numbered eleven and nine respectively, the contents of the nest being easily seen, as there were two holes in each near the bottom of the cavity, as though worn through by long usage.

A nest of twelve eggs of this Duck was taken April 23, 1880. Incubation unknown. They were set under a domestic Pekin Duck. May 14th, nine little ducklings rewarded me for my pains, and very proud was I of my success. Having kept the old Duck in confinement, I turned the little brood over to her care, and was surprised and gratified to see her take kindly to them.

I tethered the mother with a liberal cord and showed my quaint looking youngsters to admiring friends. For about a week matters thus proceeded, when I awoke one morning to find that Mrs. Duck had severed the string which held her foot, and together with her little family, had swam peacefully down Rocky-brook—to her fate—for as I afterwards learned, as they passed under the highway bridge, in the gray dawn, a sportsman (?) shot the parent bird, and left the ducklings to the more merciful mink and turtle.

The Dusky Duck breeds sparingly. A nest was found April 30. It was hollowed out at the foot of an old haystack, and

extended in twenty-seven inches, being completely hidden by a curtain of hay hanging over the entrance. It contained ten eggs; incubation slight. The nest would not have been found had it not been for the old bird hissing like a snake as I passed by it. A farmer found a set of thirteen eggs of this Duck and hatched them all under a common hen, and at latest information all were living, awaiting the ignoble end of perishing at the block.

The familiar notes of the Spotted Sandpiper are heard throughout the season. Their nests are simple structures of rootlets, with the eggs lying with small ends together. Their nests are usually found in some old cultivated field, independent of its proximity to water.

Only one nest of the Killdeer have I ever found, although the birds are plentiful in August in ponds and water courses. The nest was among the rocks just above high water mark, and contained, May 30, four eggs, just on the point of hatching.

In a small cedar swamp a colony of Night Herons hold undisputed possession. Only once did the spirit of investigation prompt me to intrude upon their domains. That I was uninvited company was evident at once. Their clamor was such as my companion expressed it, "that he couldn't hear himself think." Our climbing irons were at home, and after several futile endeavors to "shin" the slimy smooth trees, we withdrew with the "Fable of the Fox and sour grapes," in mind. The following varieties of the Heron family have been taken in this vicinity: Great-blue Heron; Green Heron; Black-crown Night Heron; American Bittern and Least Bittern.

During the spring and fall migration the number of shore birds is greatly augmented. Prominent among the list of these visitors are the Black-bellied Plover, Golden Plover, "Yellow Legs" and Pectoral Sandpiper, while the Ducks are represented by the Teals, (both varieties, but principally the Blue-wing), and the Scaup.

This list would be greatly increased if I included observations along the coast, of which this county has considerable, but these notes have been confined to inland districts. Thus ends my record for the season of '84, but even at this early date I draw comfort from the thought that in about seven months, tramps for Owl's nests will again be in order. Only a few days ago I spent, together with a friend, a very happy hour sharpening the spurs of our climbers with a file, and making them ready for '85.—*F. H. C.*

Birds of Silver City, New Mexico.

(Continued from O. & O., IX, p. 72). The numbers prefixed are from the last Smithsonian Check List.

APRIL, 1884.

- 7a Western Robin, (*Merula migratoria propinqua*), 26.
- 17 Rufous-vented Thrasher, (*Harporynchus crissalis*), 9.
- 23 Californian Bluebird, (*Sialia mexicana*), 1.
- 24 Rocky Mountain Bluebird, (*Sialia arctica*), 1, 26.
- 27 Blue-gray Gnatcatcher, (*Polioptila caerulea*), 22.
- 30 Ruby-crowned Kinglet, (*Regulus calendula*), 9.
- 39 Wollweber's Titmouse, (*Lophophanes wollweberi*), 26.
- 48 Lead-colored Tit, (*Psaltriparus plumbeus*), 17.
- 58 Rock Wren, (*Salpinctes obsoletus*), 7, 18, 24, 29.
- 61b Texan Bewick's Wren, (*Thryomanes bewickii leucogaster*), 7, 22, 26.
- 104 Grace's Warbler, *Dendroica gracie*), 24.
- 105 Black-throated Gray Warbler, (*Dendroica nigrescens*), 7, 26.
- 125a Pileolated Warbler, (*Myiothlypis pileolatus*), 22.
- 149a White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 1, 9, 21, 24, 26, 29.
- 152 Cliff Swallow, (*Petrochelidon lunifrons*), 21, 23, 29.
- 154 Barn Swallow, (*Hirundo erythrogaster*), 7, 21, 23, 24, 26, 29.
- 155 Violet-green Swallow, (*Tachycineta thalassina*), 26.
- 170 House Finch, (*Carpodacus frontalis*), 7, 9, 15, 23, 26, 29.
- 197a Western Grass Finch, (*Poaceetes gramineus confinis*), 1, 7, 26, 29.
- 204a Western Lark Finch, (*Chondestes grammica strigata*), 24, 26.
- 207a Intermediate White-crowned Sparrow, (*Zonotrichia gambeli intermedia*), 18.
- 211a Western Chipping Sparrow, (*Spizella Domestica arizonae*), 1, 7, 8, 9, 18, 21, 22, 24, 26.
- 224 Black-throated Sparrow, (*Amphispiza bilineata*), 1, 7, 9, 21, 22, 23, 24, 26, 29.
- 238a Spurred Towhee, (*Pipilo maculatus megalonyx*), 9, 18, 22, 23, 24, 26, 29.
- 239 Green-Tailed Towhee, (*Pipilo chlorurus*), 23.
- 240 Canon Towhee, (*Pipilo fuscus mesoleucus*), 1, 7, 9, 18, 21, 22, 23, 24, 26, 29.
- 260 Yellow-headed Blackbird, (*Xanthocephalus icterocephalus*), 29.
- 264 Western Meadow Lark, (*Sturnella neglecta*), 26.
- 274 Brewer's Blackbird, (*Scolecophagus cyanocephalus*), daily.
- 281 White-necked Raven, (*Corvus cryptoleucus*), 1, 21.

- 292 Woodhouse's Jay, (*Aphelocoma woodhousei*), 1, 9, 18, 23, 24, 26.
 - 307 Cassin's Kingbird, (*Tyrannus vociferans*), 26, 26.
 - 316 Say's Pewee, (*Sayornis sayi*), 7, 18, 21, 22, 23, 24, 29.
 - 328 Wright's Flycatcher, (*Empidonax obscurus*), 22, 23, 24.
 - 329a Buff-breasted Flycatcher, (*Empidonax fulvifrons pallescens*), 26.
 - 363 Texan Sapsucker, (*Picus scalaris*), 9.
 - 375b Red-shafted Flicker, (*Colaptes auratus mexicanus*), 1, 9.
 - 420 Sparrow Hawk, (*Tinnunculus sparverius*), 9.
 - 431 Cooper's Hawk, (*Accipiter cooperi*), 26.
 - 436 Red-tailed Hawk, (*Buteo borealis*), 1.
 - 451 Bald Eagle, (*Haliaeetus leucocephalus*), 1.
 - 460 Mourning Dove, (*Zenaidura carolinensis*), 7, 24, 26, 29.
- MAY.
- 5 Dwarf Thrush, (*Hylocichla unalascae*), 17.
 - 11 Mockingbird, (*Mimus polyglottos*), 7, 9, 15, 17, 19, 20, 27, 29, 30.
 - 15 Curve-billed Thrasher, (*Harporhynchus curvirostris*), 3, 20, 30.
 - 27 Blue-gray Gnatcatcher, (*Polioptila caerulea*), 1, 2.
 - 33 Golden Kinglet, (*Regulus satrapa*), 3.
 - 48 Lead-colored Tit, (*Psaltriparus plumbeus*), 17, 27.
 - 58 Rock Wren, (*Salpinctes obsoletus*), 3, 7, 12, 19.
 - 64 Audubon's Warbler, (*Dendroica auduboni*), 1, 15, 27.
 - 105 Black-throated Gray Warbler, (*Dendroica nigrescens*), 3, 7, 12.
 - 121 Macgillivray's Warbler, (*Geothlypis macgillivrayi*), 3, 12, 20, 27.
 - 125a Pileolated Warbler, (*Myiothlypis pusillus pileolatus*), 3, 19, 20, 27.
 - 139 Warbling Vireo, (*Vireo gilva*), 19.
 - 141 Blue-headed Vireo, (*Lanius vireo solitarius*), 13, 17.
 - 147 Gray Vireo, (*Vireo vicinior*), 9, 15, 27.
 - 149a White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 1, 3.
 - 153 Cliff Swallow, (*Petrochelidon lunifrons*), daily.
 - 254 Barn Swallow, (*Hirundo erythrogaster*), daily.
 - 156 Violet-Green Swallow, (*Tachycineta thalassina*), 15, 17, 19.
 - 162 Western Tanager, (*Pyranga ludoviciana*), 15, 17.
 - 170 House Finch, (*Carpodacus frontalis*), daily.
 - 185 Pine Goldfinch, (*Chrysomiris pinus*), 7, 12.
 - 224a Western Lark Finch, (*Chondestes grammica strigata*), 12, 15, 17, 27, 29.
 - 207a Intermediate White-crowned Sparrow, (*Zonotrichia gambeli intermedia*), 20.
 - 211a Western Chipping Sparrow, (*Spizella domesticus arizonae*), 1, 3, 7, 12.
 - 213 Brewer's Sparrow, (*Spizella breweri*), 12.
 - 215 Black-chinned Sparrow, (*Spizella atricapilla*), 27.
 - 221 Red-backed Snowbird, (*Junco dorsalis*), 9, 20.
 - 224 Black-throated Sparrow, (*Amphispiza bilineata*), 1, 3, 9, 12, 15, 20.
 - 230b Rock Sparrow, (*Peruvaea ruficeps eremicæ*), 12, 27.
 - 238a Spurred Towhee, (*Pipilo maculatus megalonyx*), 1, 3, 7, 9, 15, 17, 19, 20, 27.
 - 239 Green-tailed Towhee, (*Pipilo chlorurus*), 9, 20.
 - 240 Canon Towhee, (*Pipilo fuscus mesoleucus*), 1, 3, 7, 9, 12, 15, 17, 19, 20, 27, 30.
 - 245 Black-headed Grosbeak, (*Zamelodia melanocephala*), 20.
 - 255a Dwarf Cowbird, (*Molothrus ater obscurus*), 12, 15, 19, 29.
 - 260 Yellow-headed Blackbird, (*Xanthocephalus icterocephalus*), 1, 7, 29.
 - 274 Brewer's Blackbird, (*Scolecophagus cyanocephalus*), 1, 3, 7, 9, 15.
 - 281 White-necked Raven, (*Corvus cryptoleucus*), 27, 30.
 - 265 Pinon Jay, (*Gymnocitta cyanocephala*), 27.

- 292 Woodhouse's Jay, (*Aphelocoma woodhousei*), 7, 12, 17, 19, 20.
 300b Mexican Shore Lark, (*Eremophila alpestris leucolema*), 15, 29.
 307 Cassin's Kingbird, (*Tyrannus vociferans*), 3, 7, 9, 12, 15, 19, 29.
 313 Ash-throated Flycatcher, (*Myiarchus cinerascens*), 7, 12, 17, 30.
 316 Say's Pewee, (*Sayornis sayi*), 1, 7, 9, 12, 15, 17, 19, 29.
 318 Olive-sided Flycatcher, (*Contopus borealis*), 20, 27, 29.
 321 Western Wood Pewee, (*Contopus richardsoni*), 30.
 328 Wright's Flycatcher, (*Empidonax obscurus*), 9, 15, 17, 19, 20, 30.
 335 Poor-will, (*Phalaenoptilus nuttalli*), 3, 9, 27, 29, 30.
 357a Western Nighthawk, (*Chordeiles popetue henryi*), 30.
 360 Harris's Woodpecker, (*Picus villosus harrisi*), 19.
 375 Red-headed Woodpecker, (*Melanerpes erythrocephalus*), 15.
 378b Red-shafted Flicker, (*Colaptes auratus mexicanus*), 27.
 420 Sparrow-hawk, (*Tinnunculus sparverius*), 19.
 431 Cooper's Hawk, (*Accipiter cooperii*), 1.
 436 Red-tailed Hawk, (*Buteo borealis*), 27.
 460 Mourning Dove, (*Zenaidura carolinensis*), 1, 7, 9, 12, 15, 17, 19, 20, 27, 29, 30.
 483 Gambel's Quail, (*Lophortyx gambeli*), 20.
- JUNE.
- 11 Mockingbird, (*Mimus polyglottos*), 2, 9, 10, 11, 13, 16, 18, 19, 20, 24, 25.
 15 Curve-billed Thrasher, (*H. curvirostris*), 2, 3, 13.
 17 Rufous-vented Thrasher, (*Harpolorhynchus crissalis*), 3.
 58 Rock Wren, (*Salpinctes obsoletus*), 17, 19, 20, 24.
 147 Gray Vireo, (*Vireo vicinior*), 9, 11, 17.
 149a White-rumped Shrike, (*Lanius ludovicianus excubitorides*), 3, 4, 16.
 163 Hepatic Tanager, (*Pyranga hepatica*), 25.
 170 House Finch, (*Carpodacus frontalis*), daily.
 204a Western Lark Finch, (*Chondestes grammica strigata*), 4, 9, 13, 16, 19, 20.
 214 Field Sparrow, (*Spizella pusilla*), 16.
 224 Black-throated Sparrow, (*Amphispiza bilineata*), 2, 3, 11, 13, 16, 20.
 230b Rock Sparrow, (*Peruvia ruficeps tremeca*), 2.
 238a Spurred Towhee, (*Pipilo maculatus megalonyx*), 2, 6, 9, 10, 11, 13, 17, 18, 19, 20, 25.
 240 Canon Towhee, (*Pipilo fuscus mesoleucus*), 2, 3, 4, 6, 9, 10, 11, 13, 16, 17, 18, 19, 20, 24, 25.
 245 Black-headed Grosbeak, (*Z. melanocephala*), 4, 13.
 246 Blue Grosbeak, (*Guiraca caerulea*), 16.
 258c Dwarv Cowbird, (*Molothrus ater obscurus*), 13, 16.
 255 Pinon Jay, (*Gymnorhina cyanopcephala*), 4, 13.
 292 Woodhouse's Jay, (*Aphelocoma woodhousei*), 2, 4, 6, 10, 13, 20, 25.
 307 Cassin's Kingbird, (*T. vociferans*), 4, 13, 16, 17, 18, 20.
 313 Ash-throated Flycatcher, (*Myiarchus cinerascens*), 3, 9, 11, 13, 17, 18, 19, 20, 25.
 316 Say's Pewee, (*Sayornis sayi*), 2, 4, 6, 9, 11, 13, 25.
 321 Western Wood Pewee, (*Contopus richardsoni*), 2, 4, 9, 13, 17, 20, 25.
 328 Wright's Flycatcher, (*Empidonax obscurus*), 4, 6.
 339 Broad-tailed Hummingbird, (*Selasphorus platycercus*), 4, 13.
 355 Poor-will, (*Phalaenoptilus nuttalli*), 19.
 357a Western Nighthawk, (*Chordeiles popetue henryi*), 10, 11, 17, 18, 19, 20, 24.
 361a Gairdner's Woodpecker, (*Picus pubescens gairdneri*), 10.
 436 Red-tailed Hawk, (*Buteo borealis*), 2, 4, 16, 17.
 460 Mourning Dove, (*Zenaidura carolinensis*), 2, 3, 4, 6, 9, 10, 11, 13, 16, 17, 18, 19, 20, 24, 25.
 483 Gambel's Quail, (*Lophortyx gambeli*), 2, 4, 9, 13, 18, 20, 25.

—Charles H. Marsh, Silver City, New Mexico.

Brief Notes.

NOTES FROM MANHATTAN, KAN.—Mr. Blood, proprietor of the Cottage Hotel, has in confinement three Great-horned Owls which he has kept for several years. One of the females has laid two sets of eggs,—one in February, 1883, and the other in March, 1884. The bird was allowed to sit upon them for several weeks, but they failed to hatch.

A pair of Barn Owls were captured last Spring in Clay County, about thirty-five miles northwest of this place. They had taken possession of an unused hen-house and had made their nest in a corner of it. The number of eggs was not stated by my informant. This species is exceedingly rare in this part of Kansas.

In reply to Mr. Barnard's question about the Chewink (September O. and O., p. 104), I will say that with us the early nests are almost always upon the ground. I remember finding one in a gooseberry bush about a foot up. But at the second nesting they almost invariably build in bushes from two to seven feet from the ground.

The nest described by Mr. E. C. Nicewaner, in O. and O. for July, (p. 90) was probably that of the Acadian Flycatcher. All the nests of this species that I have seen agree with his description. To-day, Sept. 2d, I saw young Chipping Sparrows just from the nest. Baltimore Orioles and Purple Martins still here, the latter in large numbers.—D. E. Lantz.

MIGRATION NOTE. SHORE BIRDS. AUG. 29, 1883. Wind N. E., blowing very hard and rainy in a. m. Golden Plover and Eskimo Curlew flying in large flocks. Saw one flock of Curlew of several thousands. Rain ceased about 9 a. m., clouds raised and sky lighter. The flights were much higher. Flock after flock went by, at times five could be seen at once. This continued until noon; in the afternoon the numbers were much less.

AUG. 30, 1884. Weather cloudy, foggy. Wind S. E. and light. Curlew and Plover commenced flying but not in very large numbers; an occasional flock was to be seen during the day. The next day the weather was the same and the flights as before.—Chatham, Mass., S. Frank Dexter.

NEST OF THE CHEWINK. In answer to the inquiry of Mr. Barnard:—I have this summer, found two nests of the Chewink in bushes; one in a crabapple bush, two feet from the ground, constructed of dried leaves and coarse grass with a lining of fine grass, and containing, when discovered, three young birds. The other was made of the same kind of materials—in a brushy rose bush, one foot from the ground, and contained three white and red speckled eggs. I found both nests on the third day of August. Those found early in the season, some five or six in number, were all placed on the ground. I have not noticed that the Chewink abandons its nest more readily than other small birds, but I am careful not to disturb any of them.—Mrs. Margaret Musick, Mount Carmel, Mo.

NOTES FROM MIDDLE, N. C.—Whilst out collecting on July 15, we had the good fortune to secure a fine female specimen of Great White Egret of the following dimensions: L. 40, W. 16, T. 6½, B. 4½. Besides the above, the following birds, rare to our knowledge, have been through our hands lately: Pileated Woodpecker, (*Ilyotomus pileatus*); Sooty Tern, (*Hydrochelidon lariformis*); Little Blue Heron, (*Florida caerulea*); Red-breasted Snipe, (*Macrorhamphus griseus*).

We had brought to us for mounting, on Sept. 2, a skin of the Wood Ibis, (*Tartalida loculator*). It was killed early in July, about five miles south of here, with a .44-calibre Winchester, at long range, and, being skinned by unskilled hands and cured roughly, came to hand in bad fix. This is the first specimen of this beautiful bird that has come un-

der our observation in an experience extending over nearly four years, and we would be glad if any of your correspondents could inform us as to its range east of the Alleghanies, and to the frequency of its occurrence in this State.—*H. H. & C. S. Brimley, Raleigh, N. C.*

PILEATED WOODPECKER. I had, some years since, an opportunity to observe the habits of a pair of Pileated Woodpeckers, (*Iuglotonus pileatus*), that made their nests in a dead elm in an old clearing, in an excavation in the main trunk, about forty feet from the ground. One day, after the young birds were hatched, one of the parent birds arrived with a large grub, and alighting on the bare, smooth trunk about fifteen feet below the nest as usual, commenced to ascend after the manner of the *Pici*, when a pair of Red-headed Woodpeckers attacked it, flying up from below. The *Pileatus* defended itself courageously by striking upward against the air with its wings, and striking its assailants with the points of its rectrices, and actually thus beat them nearly to the ground, before one of them dexterously seized the prize and made off to its own nest. I would like to know if similar encounters have been observed by yourself or correspondents.—*Mrs. Margaret Musick, Mount Carmel, Mo.*

THE WOOD IBIS. Noticing in the current O. and O., that specimens of the Wood Ibis, (*Tantalus loculator*) had been recently taken in Lancaster County, Pa., I recall the circumstance of preparing the skin of a fine large male Wood Ibis at Williamsport, Lycoming County, Pa., in June, 1876.

The bird in question was run over and disabled by a market wagon in the dusk of early morning, among the hills some six miles north of Williamsport. The driver stated that there seemed to be about a dozen sitting down in the roadway. They were not observed until they rose all about the wagon with loud outcries, frightening the horse badly. On lighting the lantern the injured one was discovered trying to escape through the roadside fence. Another specimen was shot a few days later in a wet cornfield and shared the fate of most large birds killed in country districts. He formed a conspicuous ornament on a farmer's barn for several seasons. The specimen preserved is now in the fine collection of Mr. Aug. Koch of Williamsport.—*W. V. F. Du Bois, Pa.*

KING BIRDS. I notice in the September Number of the O. and O., the Rev. W. E. Hill, in his diary, speaks of the King Bird being cowardly except towards other birds. While this is the case in general, two exceptions have come under my notice. In 1882 a pair of King Birds built a nest in a sumac bush which stood in a strip of unbroken land that extended across my cornfield. As I passed near on my way to work, I usually stopped to look at the nest and see how it was getting along, and after the young birds were hatched the parents never failed to object to my approaching the nest; flying around in circles, dashing at my head, scolding all the time, and showing undoubted courage.

The second case was this year. A pair built in a scrub oak near my house (at Fridley, Minn.) and they acted very much as the first.

We allow no one to molest birds on our place and perhaps that made them more courageous.—*Court. W. Ranslow, Minneapolis, Minn.*

ENGLISH SPARROWS BUILDING IN TREES, &c.—During the past season the English Sparrows in this vicinity have built in trees to a limited extent. I saw two very bulky nests in the upper branches of a young elm, and while out early one morning in June watching a pair of these birds as they were contesting their nest, I was accosted by a good-natured Irishman, who, after he had learned what I was about, said: "Do ye know where the *Jabbers* build?" I was puzzled to know what he meant by "Jabbers," and

so intimated. He explained by saying, "Did ye never mind the birds with the long *bakes* (beaks) that they be all the time *jabbin'* into the trees?" I suggested that he might have seen a Woodpecker, and he said, "Is that the name of 'em? I call 'em the *Jabbers*." I think we could forgive the "Jabbers" if they would jab their beaks into a few English Sparrows, just for diversion. This last word reminds me of a remark recently made in my presence by an old lady who lives on a farm not many miles away. While scolding about a reckless son, she said, "I can't get him to shoot the pesky Hen Hawks, but he'll go out any time and shoot Chimney Swallows for *devotion*."—*C. E. P.*

COVERD LIVING WITH ENGLISH SPARROWS.—I have to report a Cowbird as living and accompanying a flock of English Sparrows, which no doubt had hatched and raised it. It is only noticeable by its larger size and walk, which is not a hop, as is the Sparrow, its color is the same as the female Sparrow.—*A. H. Boies, Hudson, Mich.*

LARGE SETS OF EGGS.—This season I have taken a set of 6 Song Sparrows, 6 American Gold Finches, 6 Baltimore Orioles, and 2 sets of 5 each Yellow-bill Cuckoos.—*C. E. Lincoln, Gildersleeve, Conn.*

CORRESPONDENCE.

Correspondents making inquiries are requested to be brief and to the point.

LIST OF BIRDS COLLECTED AT ST. LOUIS, MO. A correspondent (W. O. E.) having called attention to the Snowy Owl and Wild Turkey appearing in Mr. Hurter's List as "nesting," we requested him to give further particulars. Mr. Hurter writes us "I have to state, that the asterisk prefixed to *N. Scandiaca* is a mistake and did not think it necessary to correct it as any ornithologist would know better. In regard to *M. Gallopavo*, I can only state that the bird is now very rare in this neighborhood. I know of only one bird that was killed within five miles of the city by a friend of mine. Regarding the breeding, I put the asterisk on the strength of receiving from an old settler a bird in down, which he said was from a wild bird, and knowing the party very well I took it for granted—but as to the nest itself I cannot say anything."

THE DESTRUCTION OF BIRDS FOR MILLINERY PURPOSES. To the Editor of the Ornithologist and Oologist—Sir: When W. W. C. has learned that abuse is not argument nor sarcasm fact, it will be time to furnish him with some of the information he so politely requests. Until he can bring himself to use ordinary courtesy I must decline to continue the discussion.

FREDERIC A. LUCAS.

As we go to press, a lengthy reply to "W. W. C." reaches us from Mr. L. M. McCormick, for which we shall endeavor to find room next month.

BIRD LIME. H. G. Smith, Jr., asks for a good receipt for making bird-lime. A similar inquiry in our May number did not receive any response. Perhaps some of our readers who use the article will give us their receipt.

WHERE ARE THE PACIFIC COAST MIGRATION OBSERVERS? How is it that none of the West coast collectors seem interested in the spring and fall migration of our birds? If each would keep watch upon the migrations in such a climate as California, I am sure much valuable information might be obtained. Look at the ground gone over by the observers in the Middle States. Is the Pacific Coast to drop out of the migration field? Many links go to make the chain of observations complete, so let us see what a show we can make.—*A (California) Reader of the O. and O.*

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PAWTUCKET, R. I., NOVEMBER, 1884.

No. II.

Migration in the Mississippi Valley.

BAIRD'S BUNTING, (*Centronyx bairdi*). By what route does Baird's Bunting go south? That is the question. Dr. Coues writing ten years ago, says that it is extremely abundant in Dakota, almost to the Red River of the north, and that all left in September. Where did they go? The species is not known to occur in Kansas, and if there is any Nebraska record, I have failed to find it. Nevertheless we are bound to believe that it does occur in both these states. Mr. G. H. Ragsdale shot one at Gainesville, Tex., on the 24th of last April, and if it occurs in central Texas and eastern Dakota, it must perchance occur in the intervening country. At Caddo, Indian Territory, it was not found, though I shot upwards of fifty Savanna Sparrows in the vain hope that some of them would resolve themselves into the wished for Baird's. On March 31st, among a lot of Savannas I heard one singing with the final trill which Dr. Coues says is the note of this species, but I was not able to find the bird. The range of this species is from New Mexico to British America and it breeds abundantly in Dakota.

INDIGO BUNTING (*Passerina cyanea*). The Indigo is found all over the Mississippi Valley, and, though it usually leaves the United States in winter, Mr. Bibbins says that he has seen it as an occasional winter visitant at Mermenton, La. By April 29th, it has advanced up the Valley to Pierce City and St. Louis, Mo. The 3d of May it was seen at Carlinville, Ill., 39¹⁹,

and two days later at Glasgow, Mo., 39¹⁴, while on the same day it was seen at Manhattan, Kansas, 39¹². This fixes its presence very accurately at this date, but for the next two weeks the records are so much at variance that it is probably the merest approximation to say that on May 10th, the normal van was in Northern Illinois and Northern Iowa. On the 15th, it is reported from Lake City and Pine Bend, Minn.; the 23d, from Minneapolis, while from Elk River not until June 2d. Elk River, Minn., is very near the northern limit of the species. In three years' residence at 47° in Minnesota it was not seen.

It may not be out of place here to give the full record from St. Louis, as showing how many changes there are in the make-up of the individuals present at different times. April 28th, first one, a male in song; April 29th, an increase, a small flock of males; April 30th, males in song in a few places; May 5th, the bulk of males arrive and the first female; May 6th, males everywhere in noisy flocks and many transients; these two days, May 5th and 6th, were the height of the season for males; May 9th, the bulk of young males and the bulk of females arrive; mating; May 21st, nest building; May 31st, they are one of our most industrious songsters.

ORCHARD ORIOLE (*Icterus spurius*). The Orchard Oriole is one of the birds whose migration is steady and uniform, advancing northward on both sides of the Mississippi and even on the plains at the same time. Moreover, it is so conspicuous a bird that it is easily noted. Wintering be-

yond the United States, it passed over our border about the last of March, the male arriving at San Angela, Texas, 31²², on April 13th, and the female three days later. At Gainesville, Texas, 33³⁶, the first came April 14th, and the second day after, they appeared at Abbeville, La., 29⁵⁷. East of the Mississippi they came earlier, being seen at Rodney, Miss., 31⁵², on March 31st, and the first female April 9th.

The 27th of April saw them at Griggsville and Danville, Ill., and the next day three old males were seen at St. Louis. On the 29th, they were seen at Fayette, Mo., 39⁶⁹, the 30th saw them at Manhattan, Kansas, 39¹², and by May 10th they had advanced to 41⁵⁸ in Illinois, 41⁴⁰ in Iowa and 40⁵³ in Nebraska, though the probability seems to be that the advance was made simultaneously to all places on the 7th. May 12th, they came to Porte City and Waukon, Ia., 43¹⁵, with one a little behindhand at Milwaukee, Wis., 43°, on the 17th. At Lanesboro, Minn., 43¹³, they were seen May 23d, three days after they had been seen at Elk River, Minn., 45²⁵. Elk River is near the northern limit of the species. A few have been seen in Central Dakota, and it has been seen in Minnesota at White Earth, 47°; north of this there appears to be no record. The bulk moves closely behind the first, within two or three days of it.

BALTIMORE ORIOLE (*Icterus galbula*). The first record we have of this species is April 7th, when it appeared at Rodney, Miss., 31⁵², and the last, May 25th, at Oak Point, Manitoba, 50³⁰. This would make an average speed of twenty-seven miles a day. As we found last year that this was a bird of quite uniform speed, let us trace the record this year and see how it agrees. St. Louis, Mo., is reached April 26th, which would be at the rate of twenty-five miles a day; but if we go directly north from Rodney, we find a record on the 25th at Hillsborough, Ill., 39¹², which would make a speed of just twenty-seven miles a

day. About April 29th and 30th there seems to have been much movement of this species, not so much advance of the van, as the filling up of the country already traversed, bringing the bulk to the country from 39³⁰ southward and the van to 41° and in the west to Manhattan, Kansas, 39¹². At twenty-seven miles a day, they should have advanced by May 6th to about 43³⁰, nor do we have to hunt far for records of this advance. May 5th and 6th are days of especial movement in Iowa, Minnesota, Illinois and Wisconsin. During these days there are records all over Northern Illinois and Southern Wisconsin to 43⁰⁶, with a stray one at 44²², and Minnesota shows good records to 43⁴³, with an extra advance along the Mississippi River to 44³². May 12th should have found them at 46°, and we are furnished the record of its appearance that day at 45²⁵ and 46³³ in Minnesota; so that although as would be expected, there are slight variations in speed, the species shows a quite remarkable uniformity in its rate of migration through this long distance. There is, however, no trace of the increase of speed from the south northward, which was noticed last year, the highest rate being in the middle districts the first week in May. In the prairie region the records are somewhat later, the birds reaching 39¹², Kansas, April 30th; 40⁵³, Nebraska, May 9th, and 44²¹, Dakota, on May 22d. Farther west and almost at the extreme limit of its western dispersion, it was observed at Gainesville, Texas, and Ellis, Kansas.

The full record at St. Louis is: April 26th, first, three males at stands calling; April 28th, bulk of males arrive—the bulk of the species averages in all the notes about four days behind the first; May 3d, first females—the average for females is about seven days behind the first, and as the arrivals of bulk may be separated into two series, one of about two or three days in the rear, and the other of seven or eight,

it is evident that the first series indicates the arrival of the bulk of the males, while the second indicates the increase of the species as a whole, caused by the arrival of the females; May 5th, bulk of females arrive and many transients, making this day the height of the season—as has already been stated, this day and the next are the days of movement for this species, and this seems to be true over an immense country, stretching from 34° to 44° ; May 10th, first male of last year; May 11th, species very much excited and transient birds of last year present; May 31st, set found of six incubated eggs.—*W. W. Cooke.*

Bird Nesting on "Bird Island," Cal.

The undersigned, in company with Mr. A. M. Ingersoll, started on the 28th of May for "Bird Island," an island situated near the end of Tomales Point, Marin Co. This island is about one hundred and twenty-five yards from the main-land; it is a barren rock entirely destitute of vegetation, and I should judge from my observation of it, that it is about an acre and a half in area, although it may be less, and its highest point is about fifty feet above the sea level. As we viewed the island from the shore it appeared to be one mass of birds, principally Cormorants and Gulls. As we approached, the Gulls and Oyster-catchers uttered their shrill notes, and by the time we had reached the island it was in commotion, the birds flying over our heads in every imaginable direction, the majority, however, soon returned and lit on the water about a hundred and fifty yards from the island, but quite a lot of them kept continually flying over our heads.

The sight on the island is one that I shall never forget, and to any person who has never before witnessed such a sight, it is truly wonderful.

The birds that were breeding on this island consisted of the following kinds,

Brant's and Baird's Cormorants, Western Gulls and about twenty pair of Tufted Puffin were breeding in the burrows which were situated on the banks that surrounded some parts of the island. The burrows extended into a depth of about four feet, at the end of which they deposit a single egg on the bare earth. We only obtained eight of their eggs, as our time on the island was limited, and it generally takes from five to ten minutes to obtain one of them. The burrows never run straight, but nearly always curve just before the nest (if such it can be called) is reached. The two species of Cormorants each inhabited different parts of the island, the Brant's occupying the eastern side and the Baird's the western side thereof. The Brant's greatly outnumbering the Baird's. The nests were situated about eighteen inches apart and in straight rows of about thirty feet long, but I presume that as the season advanced they would greatly increase in length, as a great many of the Brant's had just commenced to form their nests. The Baird's I think are about a week earlier in their breeding habits than the Brant's, as nearly all the nests of the Baird's had full sets, while with the Brant's such was not the case. The usual complement of eggs consisted of from three to four. We only obtained two sets of five I believe, one of Brant's and one of Baird's. The nests were composed principally of seaweed and lined with sea grass. The eggs of these two species are indistinguishable from each other in regard to size and color, the only way therefore to be positive of their identity is to shoot the birds.

We obtained about two hundred eggs of the Brant's Cormorant and about one hundred and thirty of the Baird's.

The Western Gulls, (the only kind that were breeding on the island), were not so regular in their breeding habits, their nests being scattered promiscuously over the whole islands. The majority of the eggs were well advanced in incubation, and I

can assure the readers of the O. & O., that it was not a very pleasant task to prepare their eggs.

The nests were similar to those of the Cormorants, the only perceptible difference being in their size. They lay from two to three eggs, usually three. We obtained about two hundred eggs.

The nests of the Oyster-catcher we were unable to find.—*Joseph Skirm, Santa Cruz, Cal.*

Picidae.

The following species of Woodpeckers are found in the vicinity of Taftsville, Vt.

Hairy Woodpecker, (*Picus villosus*). Common. Resident. Breeds, nesting in May. More common in early winter than at other times, and of more retiring habits than the next named species.

Downy Woodpecker, (*P. pubescens*). Common. Resident. Breeds. This, the smallest of our Woodpeckers, finds its favorite breeding places in old neglected orchards. Lays from four to six pure white eggs the last of May or first of June. In the autumn of 1876 a friend, who reports to me many interesting observations in bird life, called my attention to a hole which had just been made by a Downy, in a solid, dry oak gate post. It was as spacious and complete as though designed for a nest, but was never used. The nest of the Downy excels in neatness and perfection of work, that of any other Woodpecker breeding in this locality, the hole at the entrance often being as round and perfect as though bored with an auger. I have found this to be the most industrious of our Woodpeckers. In the autumn of 1883 I saw two males, an adult and a young, busily engaged in a small cherry tree, searching the black knots with which the tree was thickly infested. In a short time they obtained from the black knot over a hundred larvæ, all of them being devoured by the young bird. When the adult bird found a larva he gave an almost

inaudible cluck, which instantly called the young to receive the tempting food.

Black-backed Woodpecker, (*Picoides arcticus*). Rare. Winter visitor. Birds of this species are oftener met with than of the following.

Banded-backed Woodpecker, (*P. tridactylus americanus*). Rare. Winter visitor.

Yellow-bellied Woodpecker, (*Sphyrapicus varius*). Common. Summer resident. Breeds. Arrives in April. Some often remain until late autumn. I have had abundant opportunities to study the breeding habits of this species and with rare exceptions, have found them to select a live tree in which to make their nest.

One hole, from which I took a clutch of five eggs, was twenty feet up in a live, sound looking beech tree, and went four inches horizontally through sound green wood, to the defective heart, in which it went down eight or nine inches.

In a large butternut tree near my home are four holes, in a nearly perpendicular row, about ten inches apart, made by this species (probably the same pair) in four successive seasons, (the last one being made this season), in each of which a family of young have been reared. The Yellow-billed, Hairy and Downy Woodpeckers are most unjustly persecuted. The three species are called Red-headed Woodpeckers or Sapsuckers, and are shot whenever there is an opportunity.

Pileated Woodpecker, (*Hylocomus pileatus*). Not common. Resident. Breeds. This is the largest and most shy of the Woodpeckers found here. Confined to the more thickly timbered districts. They are closely pursued by gunners.

Red-headed Woodpecker, (*Melanerpes erythrocephalus*). Rare. Summer visitor. I have noted it but twice, May 11th, and July 17, 1883.

Yellow-shafted Flicker, (*Colaptes auratus*). Abundant. Summer resident. Breeds. Arrives in April. A few remain until Oct. In this region they are often called Grass-

hopper Woodpeckers, from their well-known habit of congregating in open fields, where grasshoppers abound, before the autumn migration. I once saw two female Flickers, each of them trying to gain the attentions of a male, who seemed completely overwhelmed by such an outpouring of caresses. If he attempted to notice one, the other immediately interfered. I watched them for an hour, and left them with their interesting and ludicrous ceremony still progressing.—*C. O. T.*

Californian Thrasher.

(*Harporrynchus redivivus*).

I see by Mr. Denton's article on the above Thrasher he mentions that I have not found it on the eastern side of the bay. I have since then added it to my record list of Birds taken here in the last four years. The specimen taken was a female, caught in a quail trap, set in some thick brush in one of the many gullies near the town. This is the first instance of its being found here. J. G. Cooper told me he had observed them the past season—July, I believe—about eight or ten miles from here, where a belt of chaparral runs along the canyon's side. This is a favorite home of this Thrasher and it no doubt breeds there. I found them quite common in the Santa Cruz mountains; altitude, 3,000 feet. My first experience with this fine singer was there in October, 1883; also at the same time this year. I heard a call note, rather low but very clear, one afternoon near camp, and not being familiar with it, I took out my gun to see what I could get out of a wild coffee bush, where the notes seemed to come. I gave the call note as near as I could three or four times and pretty soon I heard it coming near to the road. The bird flew to the low fence, where I shot it, and found it to be a male. The crop was full of berries, which these birds seemed to like, as I found them every morning there while at camp in this part

of the mountains. A great variety of birds feed on this bush and the alderberry trees at this time of the year.

One afternoon, while watching some Chickadees (*P. rufescens neglectus*), I noticed a number of holes in the dead leaves, as though made by a large, blunt stick. I could not for some time make out what it was; but on hearing one of the Californian Thrashers in the thick bushes, I came to the conclusion it must be this bird's work. I went a short distance, giving the call note, and as I stopped, one of the Thrashers hopped out from under the bushes and began to scratch with its long curved bill under the dry leaves. It seemed to make no use of its feet in its hunting after worms and insects among the leaves. All the work was done by the bill, which seemed to be made especially for the purpose. Mr. Denton has not seen it back from the coast range, he says. L. Belding, List of the Birds of Central California (U. S. National Museum Proceedings, Vol. I), found it breeding at Murphy's, Calaveras County, latitude, 38°, altitude, about 2,400 feet; situated at the line of junction of the chaparral belt and pine region, about 150 miles east of here. It is a resident of Marysville, Yuba County, altitude about 150 feet, and is found rarely at Stockton. At Newcastle, Placer County, it breeds, and is called by the miners California Mocker. I found it three miles back of Sonoma, north of here fifty miles; altitude, 300 feet. It is not uncommon through San Diego County to the Vulcan Mountains, eighty miles from the coast; altitude, some 5,000 feet. I heard it singing there March 9, 1884. No doubt it breeds on the mountains.—*W. O. Emerson.*

We call our readers attention to the List of Magazines given this week, for which we shall be pleased to receive subscriptions. As the time is now approaching when renewals ought to be made, perhaps our subscribers will consider whether it would not be for their advantage to avail themselves of the opportunity thus afforded.

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS.
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

In our advertising Columns will be found a notice of the remarkably interesting and valuable collection of Eggs belonging to Dr. E. Baldamus of Coburg. It is much to be desired that so unique a Collection could be secured for some one of the many Museums in this country.

At the risk of being considered intractable, we venture to plead for an arrest of judgment on the English Sparrow. The charges brought against him are neither new, nor unknown in the land from which he comes. With all due respect to the Committee of the Union who have reported against him, we venture to submit that the Sparrow, even if occasionally graminivorous, yet helps us to control many troublesome and destructive insects. Is he not usually found in towns where the damage to "crops" is not an item of much importance? As to exterminating song birds, he does not seem to have done it in the land of his ancestors, and if the charge is valid here, which seems at any rate doubtful, the process is a very slow one.

We spare considerable space this month to a discussion on the destruction of birds for millinery purposes. That our song and plumage birds should suffer any seri-

ous diminution from the ravages of feather hunters would be deeply regretted by all. But on this point the evidence is not conclusive. It is not sufficient to point to the large trade demand, nor even to show that in certain localities a summer visitor once numerous is now rarely seen. The former may be supplied from the annual large excess of bird life, and the latter from causes that have no connection, or only a remote one, with the subject under consideration. We know of no common bird that is now rare. The notes that we print from month to month from widely separated localities show a teeming bird life, which neither natural enemies nor feather-hunting has yet made much impression upon. The demand is subject to the caprice of fashion and may soon drop off as quickly as it has arisen. In the meantime the friends of the birds will watch the result and will not be backward in coming to their protection if the necessity shall arise. Our ever increasing population will drive some species to more quiet places, but it is doubtful whether the destruction of Hawks and similar predatory birds, does not result in an increase of the security of the smaller birds, fully equal to the direct destruction for trade purposes.

American Ornithologists' Union.

The Second Annual Meeting of the American Ornithologists' Union, was held in New York Sept. 30, and Oct. 1 and 2, 1884, under the presidency of Mr. J. A. Allen. Dr. Merriam, the Secretary, presented his report by which it appeared the present membership was: Active, 44; Foreign, 20; Corresponding, 16; Associate, 63. An extensive addition was made to the membership on the recommendation of the Council.

Reports were presented from the various Committees of the Union, as under:

Dr. Coues read the report on "Provision of Nomenclature and Classification of American Birds" of which more will probably be heard shortly.

Dr. J. B. Holder presented a report "on the Eligibility or Ineligibility of the European House Sparrow in America," which was emphatically against the Sparrow.

Mr. J. A. Allen presented the report of the committee "on Faunal Areas" showing the work that was being done in their branch of investigation.

A committee was appointed for the protection of North American Birds and their eggs against wanton and indiscriminate destruction.

The Committee on "Bird Migration" reported that the returns received from observers were exceedingly voluminous and valuable. Some of them have been tabulated by Dr. J. M. Wheaton and Dr. A. K. Fisher. It was determined to amalgamate this committee with the one on "Faunal Areas" under the title of "Committee on the Migration and Geographical Distribution of North American Birds." Interest was added to the meeting by the presence of several eminent British ornithologists. The officers of the Union were re-elected—bringing a very successful meeting to a close.

Anomalous Nidifications.

Under this somewhat breezy title, I will present a few notes on curious nesting, taken from my journal of '84, which I hope may call forth the experiences of others, as the subject is one that is full of interest to us all.

Beginning with May 11th, the first genuine surprise of the season was the starting of a White-rumped Shrike, (*L. ludovicianus excubitorides*), from an old Grackle's nest, in an oak, fully twenty-five feet from the ground. Last year I took a clutch of Grackle's eggs from the same nest, and thinking it would be just as well to pass it again while making a cut across the fields, in the hope of securing a set this season, I was astonished to find this strange tenant had added a few straws and feathers to the lining and gone to housekeeping under

rather remarkable circumstances. A clutch of six eggs rewarded my climb through the tangled branches.

On the 20th of May, I had the good fortune to secure a set of three fine eggs of the Broad-billed Hawk, (*Buteo pennsylvanicus*), in a deserted nest of the Common Crow, from which I had removed a clutch of eggs on the 28th of April. I find it to be such a common practice of the *raptore*s—this appropriating abandoned Crow's nests—that I suspect in many instances where a certain Hawk's nest is described as resembling that of a Crow, the work may be safely attributed to the latter architect and builder. I also took two sets of the Cooper's Hawk, (*A. cooperi*), from unequivocal Crow's nests, in the same piece of woods.

May 26th, a remarkable nest of the Yellow-headed Blackbird, (*Xanthocephalus icterocephalus*), is to be noted, in which the usual basket-like structure of rush leaves was protected from the vicissitudes of the weather by the building of another affair, resembling the foundation of one of their nests, directly over it. In the lower, or true nest, access to which was obtained by a neat entrance on one side, were four eggs.

Speaking of Chewink's nests and their height from the ground, I can tell of one that lowers, or rather raises any record that I have seen, considerably. While strolling along the bottoms of a small creek near Lake City, Minn., one day about the middle of last July, the path led my two companions and me under a tangled mass of shrubbery caused by a grape vine matting the tops of a number of oak saplings together in a compact sort of leafy table, which resembled pictures we have seen of the banyan tree, as much as anything I can recall to mind, with its flat top and many trunks. Suddenly a rustling overhead attracted our attention and I, being in the advance, looked up just in time to see a Chewink, (*P. erythrophthalmus*),

run over the leaves to the edge of the table and fly into the wood. Wondering what the bird could be doing in this unusual situation, we determined to inspect the surroundings closely, at last discovering what appeared to be a nest, near the further end of the mass of foliage. I suggested "an old nest," but my cousin, a boy of sixteen, who could be relied upon to detect a misplaced leaf in that locality, said, "No, there was nothing there a week ago." This certainly demanded an investigation, but how? The tops of the trees were certainly far out of our reach and would not bear one's weight; we dared not attempt to draw them down by means of the vine as that would certainly overturn the nest and contents, if it had any. Finally an acrobatic expedient was hit upon and by having my cousin stand upon my shoulders, he was just able to reach the nest and take from it a single Chewink's egg, which was inspected and immediately returned. A week later the bird was on the nest, but the clutch of one had not been added to. An exact measurement proved the nest to be eleven feet four inches, (11 ft. 4 in), from the ground. It was a bulky affair, consisting of a foundation of oak leaves, which formed the greater part of the structure, a lining made up of grape vine bark, and grass.

Whether our Minnesota birds are particularly lofty in their aspirations—as these notes would make them out—or not, I would not attempt to say; but it is worthy of remark, that, while the Great Blue Heron, (*A. herodias*), and Double-crested Cormorant, (*P. dilophus*), even nest on the ground in some localities, their eggs become peculiarly valuable to us, after a climb of from seventy to ninety feet, at the risk of one's neck, up the trunks of elms that are limbless, for the first fifty feet at least. Sometime I may try to relate my first experience in that herony; so far, it has been my last.—*Dr. Patton, Minneapolis, Minn.*

Californian Notes.

Poway Valley, twenty-two miles from San Diego City.

Jan. 15, 1884. Russet-backed Thrush (*Hylocichla ustulata*); Dwarf Thrush (*H. undulascæ*); Western Robin (*Merula migratoria propinqua*), are not common birds; Mockingbird (*Mimus polyglottus*) can be heard singing during the day and night in breeding season.

Californian Thrasher (*Harporhynchus redivivus*) are not very common.

Californian Bluebird (*Sialia mexicana*) has been common this winter. They feed on the berries of the pepper tree.

Rocky Mountain Bluebird (*S. arctica*) has also been common this month, I am told, for the first time in this valley.

Blue-gray Gnatcatcher (*Polioptila caerulea*) have been shot, but are rare.

Ruby-crowned Kinglet (*Regulus calendula*). A male was seen in the pepper trees April 27th.

Least Tit (*Psaltriparus minimus*). I found a nest ready for eggs April 13th.

Cactus Wren (*Campylorhynchus brunneicapillus*) is common and was seen and heard singing April 9th. I found my first nest on the 18th. It contained five fresh eggs and was placed on a cactus leaf, five feet from the ground. It was composed of grass of various kinds, the walls being very thick and lined with feathers. The nest is large for the size of the bird, being 10 inches long, 8 broad and 7 high, of a flat oval form. There was an opening facing the west in one end, an arrangement probably designed to keep out the wet, the rains usually coming from the south.

Rock Wren (*Salpinctes obsoletus*) were not uncommon on the rocky hillsides and ridges during January.

Californian Bewick's Wren (*Thryomanes bewickii spilurus*) was noticed April 15th.

Western House Wren (*Troglodytes aedon parkmanni*), April 15th, breeds.

American Titlark (*Anthus ludovicianus*) was noticed April 6th.

Summer Yellow (*Dendræca aestiva*) was seen on April 8th.

Audubon's Warbler (*D. auduboni*) was common all winter.

Maryland Yellow throat (*Geothlypis trichas*), one was seen April 11th.

Pileolated Warbler (*Myiodiodes pusillus pileolatus*) was seen feeding on the sage April 5th.

Western Warbling Vireo (*Vireosylvia gilva swainsoni*), one was seen, April 10th.

Cliff Swallow (*Petrochelidon lunifrons*). Numbers were seen building April 6th.

Crimson House Finch (*Carpodacus frontalis rhodocopus*) were found with young April 15th.

White-rumped Shrike (*Lanius ludovicianus excubitorides*), also with young, April 9th.

Green-backed Goldfinch (*Astragalinus psaltria*), one pair was seen January 16th.

Lawrence's Goldfinch (*A. lawrencei*) is not uncommon. I found a nest with young and also one with fresh eggs on April 23d.

Western Savannah Sparrow (*Passerculus sandwichensis alaudinus*) were found in flocks feeding with House Finches, Shore Larks and W. Lark Finches (*Chondestes grammica strigata*). The last were common. I found nests with eggs April 20th, on the ground and in the cacti.

W. Grass Finch (*Pooecetes gramineus confinis*) was not uncommon during January.

Gambel's White-crowned Swallow (*Zonotrichia gambeli*); not uncommon. I noticed them as late as April 27th.

Bell's Sparrow (*Amphispiza belli*), one was seen April 18th. I was shown a set of eggs taken last season.

Californian Brown Towhee (*Pipilo fuscus crissalis*) was seen with young April 18th.

Black-headed Grosbeak (*Zamelodia melanopephala*) was seen singing April 10th.

Lazuli Bunting (*Passerina amoena*) was noticed on April 18th.

Yellow-headed Blackbird (*X. icterocephalus*) was first noticed April 8th, common during the month.

Red-and black-shouldered Blackbird (*A. phæniceus gubernator*). A flock flew by April 12th, and of *A. tricolor* three males were shot out of four. April 23d, a flock of forty or more flew by.

Mexican Shore Lark (*Eremophila alpestris chrysolema*), common; first set was taken April 20th.

Western Meadow Lark (*Sturnella neglecta*), common all winter; breeds.

Hooded Oriole (*Icterus cucullatus*), first seen April 5th; nests ready for eggs on the 27th; quite common.—*W. O. Emerson.*

(To be Continued.)

Brief Notes.

EMU'S EGGS. There is perhaps no egg as distinctive in appearance as that of the Emu (*Dromæus novæ hollandæ*). I have recently received, direct by mail from Tasmania, a pair of the beautiful dark treasures, which I wish every ornithologist could see. The eggs are fresh, having been procured and prepared by the friend who kindly donated them, during the past season. They are of the usual egg form, differing slightly in size: the larger one measuring 4 inches in oblong circumference and 12 inches around the bulge. The shell of the egg is thick and of a deep green color, in texture and shade resembling closely heavy green morocco. The eggs are blown with one hole and in a perfect condition. They were shipped separately, packed in cotton, in secure wooden boxes. The boxes were constructed with great care, dovetailed and screwed together in such a manner that it required some ingenuity to open them. The prepaid postage on them amounted to almost \$3.00 in our money.

The Emu is growing rather scarce in its native Australian territory and before the round of another century it will probably be a bird of the past. The flesh and eggs are esteemed fine food in the colonies.

The eggs of the Black Swan, which are very abundant, are however a more regular diet.—*Mrs. S. L. Oberholzer, Norris-town, Pa.*

NOTES FROM CHESTER COUNTY, PA.—White-Bellied Nuthatch (*Sitta Carolinensis*). While passing through a wood April 16, I noticed a pair of these birds on a small chestnut. Presently the female entered a knothole, and thinking there must be a nest, I ascended for investigation. I found the nest containing eight fresh eggs; which I took. On returning the next day for the nest, I was agreeably surprised on finding another egg, making a set of nine.

Sparrow Hawk, (*Tinnunculus Sparverius*). April 29, A friend of mine took a fine set of the eggs of this bird, from an easily accessible gum tree. I obtained three of the eggs, and thought myself very lucky, as they are rather scarce in this neighborhood.

MAY 9. Took a fine set of Hairy Woodpeckers eggs (*Picus villosus*) from an old beech about forty feet from the ground. The eggs four in number, are a beautiful crystalline white.

While on a morning ramble June 2, I noticed a pair of Kentucky Warblers (*Oporornis formosa*), making a 'fuss'; and thinking there must be a nest near, I sat down to watch them. I did not have to wait longer than fifteen minutes, before the female retired to her nest; and I was rewarded by finding the same containing five fresh eggs.

On returning from a day's journey, June 4, my brother came to me with a set of eggs he thought to be Grass Finches (*Pooecetes gramineus*). But examination proved them to be the eggs of the Yellow-Winged Sparrow (*Coturniculus passerinus*). The eggs four in number are a beautiful white back-ground with red spots on the larger end. Incubation was advanced about four days in three, and the fourth was as fresh as though just laid.

JUNE 5, I took a very pretty set of Green-Crested Flycatchers eggs (*Empidonax acadicus*), also four other sets a week later. All these nests were placed on the low horizontal limbs of the beech; generally along a stream of water.

JULY 2, I found a nest of the Yellow-Throated Vireo, (*Vireo flavifrons*), in a tall ash about fifty feet from the ground. The nest which I have before me is a beautiful structure. It resembles the Red-Eyed in shape, but not in materials used. It is lined with dead grass, no grapevine bark, which is invariably present in the lining of the Red-Eyed's nest. The outside however is composed entirely of lichens from the bark of trees, and a kind of white silky web. The nest contained but two eggs, one Yellow-Throat's and one Cowbird's. Incubation advanced about six days.

JULY 1. My friend handed me a nest and four eggs, of the Blue-Winged Yellow Warbler, (*Helminthophaga pinus*). The eggs are somewhat smaller than the Maryland Yellow Throats; of a pure white background, with a few brown spots and lines around the larger end. The nest resembles that of the above mentioned species, except the lining which is entirely of grapevine bark, the ends of which stick up all around the inner edge of the nest.

I found a nest of the Maryland Yellow Throat this summer, situated about three feet from the ground; in a very thick bush. It contained one young Maryland Yellow Throat, one egg and one Cowbird. The Cowbird was as large as both the old Maryland Yellow Throats put together. Have any of the readers of the O. & O. found a nest of this bird in like situation?—W. H.

NOTES FROM FROGMORE, SOUTH CAROLINA. I have often observed the peculiar beak on the upper mandible of the Meadow Lark, think it occurs in very old individuals. Those which are resident here are very dark, almost melanitic and usually have the hooked bill.

Fifteen or twenty years ago the Cat bird was very scarce. I only shot two in three years of steady collecting. Last spring they were not uncommon and this fall are very numerous, a change no doubt in the route of migration.

I never detected the Tufted Tit until last spring. This summer I found them breeding and now they are a common bird. The same may be said of the Yellow-breasted Chat. Possibly a change of habitat.

The Red Start is migrating through the Island this fall for the first time in my memory.

Among the rare birds which I have taken this year are the Bachman's Finch, Swainson's Warbler, Orange-crowned Warbler.

The Kildeer seems to have forsaken this as a breeding locality, but one individual was seen from the second week in March until this week. Heretofore they have always bred plentifully in all the old cotton fields.

I procured an Ibis this summer which I cannot identify. The plumage is that of an immature bird. White beneath and on the rump and chocolate above. When fresh the whole

upper plumage was suffused with a dull red flush which disappeared very quickly—as soon in fact as the bird was cold; bill dull flesh color; legs and feet grey; length 26 $\frac{1}{2}$; wing 12.—Walter Hoxie.

THE COWBIRD NUISANCE. There has been some talk here of exterminating the English sparrow from the country, but I think they might better exterminate the common Cowbird. It is almost impossible for a Chipping bird or a Yellow Warbler to build their nest here without having one or more Cowbird's eggs deposited in it. Last spring I took an Oriole's nest that had been deserted by the old ones, I found in it three Oriole's and three Cowbird's eggs, and under these covered up were also three more Cowbird's eggs, making nine eggs in the nest. I did not wonder then that they left the nest. I also found an Eaves swallow's nest with four English sparrow's eggs in it, the first I have found of either of these nests being occupied or molested by other birds.—S. E. Parshall, Cheshire, N. Y.

SCREECH OWLS. There seem to be a great many Screech Owls, in this city this season. The "Herald" reported one caught on the Public Square, and remarked that they seemed plentiful. A young man caught one on my yard fence and a boy shot another with a sling shot, close by here; the two latter I have mounted. I saw one sitting on the cross bar of a telegraph pole and I was told of another, today, which a Bohemian mounted a ladder to catch, but his pluck failed him, and instead of making the fatal grab, he slid down the ladder double quick, leaving the owl alone in his glory. The specimens I have differ in color, one being ruddy and the other grey. Last May a Whippoorwill was caught in a shoe store, having flown in as soon as the store was opened in the morning. A friend of mine shot a pure white Robin a few weeks since, near Oberlin, O.—R. J. Tozer, Cleveland, O.

A KINGBIRD'S REVENGE. Of the courage and deeds of daring of the Kingbird, (*Tyrannus carolinensis*), all observers of bird life are aware, and yet but few persons I think realize the power and extent of warfare carried on by this spirited bird. A young collector related to me a little incident a few days ago concerning the Kingbird which I think is worthy of mention in the O. & O. He said that he was crossing a field one day, when his attention was attracted by two Kingbirds that were pursuing a crow, which most likely had robbed their nest. The crow tried to dodge one of the birds, when the other dashed down on him like a flash. With a yell of pain the crow fluttered to the ground into a bunch of bushes as if shot. My friend walked up to the bushes, looked in, and saw the crow staggering around as if blind. He secured the crow, and upon examining saw a small hole in the right eye from which the blood was slowly oozing. The Kingbirds as if elated at their victory were screaming overhead.—J. C. Cahoon, Taunton, Mass.

The Greenfield Natural History Society was presented with another White Grey squirrel shot near here. This making the second that we have, a male and female. I saw a White English sparrow a few days ago, but could not get it. The squirrel which I have just spoken of has been seen three seasons in the same woods.—S. W. Comstock, Vice-President.

CORRESPONDENCE.

THE DESTRUCTION OF BIRDS FOR MILLINERY PURPOSES.

EDITOR OF THE ORNITHOLOGIST—Sir: I too, have been much interested, for a longer time however than the past year or two, in reading the statements of the friends of birds and others, regarding the protection of our feathered friends. I have, however, been differently affected by them than your Boston correspondent seems to have been; pos-

sibly, because I have not had the benefit of the aesthetic teaching of John Sullivan, so apparent in "W. W. C.'s" style; or more probably, for the reason that they put no "pease in my shoes."

Fearing that Mr. Lucas will not follow to reply to a writer who, after dodging responsibility behind initials, descends to substituting abusive sarcasm for arguments, yet offensively "requires facts" in order that he may "show the fallacy of his" (Mr. Lucas') "statements," thus forfeiting all rights to a reply; my "sympathies for the writer at the exhibition of his utter ignorance" (or worse,) are so aroused that I will try and refer him to some few of the "facts in the case."

Passing his tirade against the "gentle idiots whose voluminous contributions of sweet sentiment," written to gain the "approving recognition of some fair damsel or maiden aunt," with the reminder that such writers as Longfellow, Beecher, Kingsley, Waterton, Thomas, and others, must share his delicate epithets, it must be admitted that even the fear he expresses at the simple P. O., address given by Mr. Lucas, hardly justifies the conclusions he records as facts. Mr. Lucas is not the "taxidermist of the U. S. National Museum," and so lays no claims to the "Therefore ought and *ergo* does know," so kindly supplied by "W. W. C."

But in denying the right of Mr. Lucas to speak with authority on that basis, "W. W. C." is franker than in other portions of his letter. It is true that only a small proportion of the birds sacrificed in the name of science and taxidermy, are legitimately so used. No taxidermist or scientist advertises for an unlimited number of one or two species of birds, or receives hundreds of birds a day for "scientific purposes."

The skin and egg collectors have too long hidden their operations under the scientific cloak; why is "W. W. C." "shaky" lest the matter should be settled?

For a few figures that will interest our questioner, I will respectfully refer him to an editorial in *Forest and Stream*, for August 7, too long to quote, but not by any means exhausting the subject. Ellis and Webster advertised in the spring for Purple Grackles, Blue Jays, and other bright colored birds. Perhaps they can furnish some light on the subject by telling us the result in bird skins received.

Has "W. W. C." never been among village boys, that he questions the damage they do? I thought it was an acknowledged evil, coming as periodically as the spring-time, and affecting a new set of boys each year. In this section it generally strikes the boys when about ten or twelve years old, and may be compared in its effect to the postage stamp rage with boys of larger places; but unfortunately birds are more valuable than old envelopes and so the damage to the community is greater. It may start with one boy in a village as the first indication of a coming naturalist. It quickly spreads to all his playmates as simply a competitive craze to get the greatest numbers and variety, stimulated perhaps by seeing a cash value affixed in some dealer's catalogue. From the scattered nature of this collecting, it is not possible for me to speak with exactness as to the damage done any more than it would be possible to be exact in an estimate of the damage done by the birds of prey. In the two or three places where I have been able to observe, I should say the boys had much more to answer for than the Hawks and Owls.

"W. W. C." begs off on the "error of enumerating the insects plus their progeny—while there might be millions in it, we can afford to let it pass, and confine ourselves to the main question." We will let him off when we have reminded him that in 1873 one county in Missouri (Jackson,) paid a tax to this error of \$2,500,000, three others \$2,000,000 each, an aggregate of \$15,000,000 for twenty-six counties.

That a few newly settled and comparatively sparsely populated states and territories lost about \$200,000,000 in four years from the same causes, "might get distracting."

When "W. W. C." asks us to "remember the great poet says 'little fleas,'" etc., would he as a naturalist, advise us to try and rid a kennel of vermin by letting the job out to the "lesser fleas and so ad infinitum?"

Harris estimates 4,800 species of insects in Massachusetts. Can you show a list of 240 (one to twenty) birds? And you cannot tell the effect of removing the check which nature has put on one of the 4,800. Out from under the good dame's restraint, it may develop unthought of possibilities. Instance the potato beetle. In 1863 it was a haess in-rim sect, feeding on a weed in Nebraska. Civilization advancing westward paves a broad road with better food for our friend, and graded it by shipping east by the carload the grouse and quail of the country. About twenty years ago the potato came within reach of the bug, and presto! the manufacture of Paris green is a great business in the land! Maine alone paid \$50,000 for her 100 tons this last season.

Flag alludes to forest tracts in Virginia and Carolina in which hundreds of acres were stripped by the larvae of a species of borer beetles, when a local persecution had driven off the Wood Peckers, charged with injuring the trees.

Dodge says that in 1793 the forests of Brandenburg and Saxony, were almost destroyed by the larvae of moths, which found lodgments in the branches and fed upon the tender wood. Examination by naturalists showed that the disappearance of several species of Wood Peckers and Titmice was the cause.

Buffon tells of the subjugation of Locusts that had been accidentally introduced in the Isle of Bourbon, by importing Indian Grackles also.

In Europe, whenever the Sparrow has been declared contraband, and measures for its extermination taken, the increase of insects has compelled the revocation of such laws.

Prof. Aughey says that the settlers of Nebraska destroyed vast numbers of birds, Black Birds especially, by poisoning. He estimated for Dakota county alone \$8,000, in a single autumn. The birds visited the corn fields and stripped the end of the ears to get at a grub that infested the corn. The farmers thought that they were destroying the corn, and after soaking grain in strichnine, piled up the dead birds in heaps three or four feet high. A few years later a government report printed extracts from letters from fifty counties, (four states,) in which the farmers testify to the good offices of the birds "especially Black Birds" in destroying the Locusts.

In Massachusetts Prof. Jenks tells how on election day at Bridgewater, about sixty years ago, birds were killed at a shooting match in such numbers that they were sold to the farmers for fertilizer. As a result of the scarcity of birds that followed, "tufts of withered grass appeared and widened into miles sere and scorched, destroyed by the larvae of insects." These are but a few of the many instances that could be cited to prove that the legend of "The Birds of Killingworth" is not overdrawn.

I think that "W. W. C." will admit that they are quite as valuable in proving the nicety of the adjustment of the balance of nature, as even the statistics from the "time immemorial" of Mexico and Peru would be if they could be procured. The few hundred birds, taken in a tropical climate, with the rude instruments of savages, to be worn as cloaks and head-dresses by savage chiefs, would bear about the same ratio to the numbers slaughtered for the adornment of civilized millinery, as the gold used by the same chiefs as bracelets, and nose rings, would to that carried as watches and jewelery by his brothers of the Hub.

Even with a tropical climate, in which to propagate her birds, Trinidad could not supply the continued drain upon her birds for feathers, and Kingsley mourns the rapid approach of the extermination which threatened the birds of that island at the time of his visit. From time immemorial also birds have been protected by popular superstition; a deserted Stork's nest or rookery meant bad luck to the premises. If a Robin died in a hand, the hand would ever after shake; or if a bird's nest were wilfully destroyed the wood spirits and fays would avenge them. Of course the "New England school marm" has driven all such nonsense out of the boy's heads, but what has she given to replace it? Civilization is the great disturber of nature; but we have seen that nature can be well avenged, when the disturber turns destroyer and fails to replace. "Even exchange is no robbery," but what exchange does the destroyer of our "mounted police"—of the insects, offer for his spoils? Illinois has, by the careful estimate of three of her ornithologists an average bird life of *three per acre*. Is Long Island so much richer that she can spare 70,000 from one village? Is it not true that Swallows have become very scarce there?

Shall the naturalist of the country wait to protest against the killing of birds for millinery purposes until it is proved that the results to the farmer will be the same as if they were killed from a misunderstanding of their habits? Here the birds are in danger, not from thoughtlessness or misunderstanding, but from a business carried on by men who have no interest in the fate of the land—a business whose profits of 200 or 300 per cent all round gives promise of rapid growth, in spite of, the fact that it is carried on in defiance of existing laws.

While fully subscribing to the axiom that "No good naturalist will destroy life wantonly" which "W. W. C." asserts" so manfully, I will suggest that if "those who are studying nature," etc., would clear their skirts of the professional collectors, "stand in" with the law makers, instead of the law breakers, and help to expose those who under the name of science slaughter the birds for other purposes, they would find little or no difficulty in convincing those in authority of their own right to protection in their studies. This might be hard on the hypocritical humbugs who rail against the promoters of protection for birds, only because they wish to throw dust in the eyes of the public, and pose as much abused students, when the truth is, they only take the position they do, to bluff off too close examination of their very questionable transactions: who allow "no one to deprecate more than I the killing of birds for millinery purposes," but would have us believe that there is "A great cry over a very little wool."

It is not to be wondered at that our law enforcers, confused by the blatant cry of "science" from one side, and silent indifference from the true student, should lose patience and make all show their proofs. I think that our laws are liberal enough: the only improvement that is needed being some specifications as to the kind of proof to be furnished by the student who wishes to avail himself of the clause "Except for scientific purposes."—L. M. McCormick, Washington, D. C.

EDITOR O. AND O.—Sir: I don't know but that you may think it presumptuous for me to take up any of your space in replying to the communication of Mr. Lucas in the October number in which he charges me with abuse, sarcasm and lack of courtesy. I was in hopes Mr. L. would have made answer to my communication as he was so ready in reply to the article of your's, and I sincerely hope he is not "backing out," for he made such positive, italicised assertions that I was sure he had unquestionable facts as a basis. To charge an antagonist with abuse and courtesy is an

old dodge in newspaper warfare, and makes the way easy to get out of an untenable position. I suppose such are meant when the poet speaks of

..... "Men, like horses hot at hand
Make gallant show and promise of their mettle;
But when they should endure the bloody spur
They fall their crests, and, like deceitful jades,
Sink in the trial."

If he is afraid his facts won't bear out his unhesitating affirmations, why, then I don't know that he is to be blamed for getting out as best he can, and look upon pleasure as abuse or discourtesy. As to sarcasm, it does seem as though his habitation is too well glazed for him to cast stones, for in his article in reply to that of the O. and O. he steps out of his way, leaves the subject altogether to "pick up" a fancied error of the Editor, by parenthetically adding (mammals?) to that portion speaking of the fur of animals—and to my mind his correction(?) was somewhat strained, viewed logically. I agree with him fully that "sarcasm is not fact," and will go further and say neither are unsupported affirmations conclusive even though backed up by employment in the U. S. National Museum.

I am sorry he thinks my article was abusive or discourteous. I certainly did not intend it should be anything of the kind. My object in answering his letter was to make sure if possible of a reply and get what I have for a long time tried vainly to obtain, a square edged presentation of facts upon the destruction of song and insectivorous birds for commercial purposes, taken from the position.

Generalities, sentiment and *gush* I have found *ad nauseam*, but nothing else, and I have tried ineffectually so long, that I am about discouraged. I am egotistical enough to think that I know why there is nothing else to be had; at any rate about every one who enters the lists to champion the cause seems to meet an unsurmountable obstacle when called upon to drop gush and poetical license and take "frozen facts" for a basis. I have interested myself not a little in looking into this matter, have tried to study both sides of the case impartially and without prejudice, and I have convinced myself. When those who take the position that our birds, song and insectivorous, are decreasing in numbers by reason of their being killed for commercial purposes, will produce *some reasons why they think so*, then I think I can show them their error, but to undertake to confront sweeping generalities, unsupported affirmations, or the sweet sentimental gush that appears spasmodically in print, is simply impossible. There is no starting point. Mr. Lucas "unhesitatingly affirms" that he knows. Tell us how you know! What facts are you in possession of? We said you might convince us we were wrong, but rest assured you will not until you establish the fact that you are right in your deductions as drawn from what is indisputable. I am very sorry that Mr. Lucas should look upon my article as he does. There was no intentional discourtesy, but I see there is to be a lengthy reply from Mr. McCormick in your next, and by the way does he not hail from the U. S. National Museum? I hope Mr. Lucas is not answering by proxy. I am glad to see an interest awakened in this matter. It may be productive of great good ere the end comes.—W. W. C.

MAKING BIRD LIME. Several correspondents say that they make it by boiling down Linseed Oil to about one-third the quantity. This should be done in the open air to avoid the annoying smell, and it is well also to set the oil on fire in the kettle with lighted sticks. When thick and stringy, the fire must be smothered out.

Walter Hoxie. We shall be pleased to receive notes from your locality.

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NO. 12.

Migration in the Mississippi Valley.

SPEED OF MIGRATION.

When we come to study the speed at which the birds proceed northward in their migrations, we are beset by many difficulties. To determine the comparative speed of the several species is easy enough, now that we have the requisite data in hand, but to determine the absolute rate, the definite number of miles which a given species makes during one day's journey, this is beyond our power, and from the nature of the case, so it will ever remain. If migration were a steady movement northward, with the same individuals always in the van, we might by careful observation, arrive at an approximation. Instead of this, the movement in migration somewhat resembles that of a game of leap-frog. In the fall migration the younger birds lead, but in the spring they loiter far behind, and it is the old birds, those in whom we may suppose the love of home and the desire for procreation are strongest, that press forward so largely. Moreover, of these old birds those which arrive first at a given place are *as a rule*, birds which lived there the previous summer and which will remain there to breed. Thus the vanguard is constantly arresting itself and the forward movement must wait the arrival of the next corps, which may be near at hand or far behind. The movement of migration then, is a constant series of overlappings and the real speed is evidently much more than the apparent. Of this real speed of transit, we can take no account, and our calculated rates therefore

are of value only in showing the relative speed of migration of the different species. For our purposes the speed of migration is calculated as follows: the most southern reliable record is selected to be compared with the most northern record which can be relied upon; the distance in miles between these two stations is divided by the number of days elapsing from the time the bird made its appearance at the southern station, to the date at which it was seen by the northern observer; the result being the average rate of migration in miles per day. To take a concrete example: The Baltimore Oriole (*I. galbula*) was seen at Rodney, Miss., lat. $31^{\circ} 52'$, on April 7th. It was not seen at Oak Point, Manitoba, lat. $50^{\circ} 30'$, until May 25th. It was therefore forty-eight days in passing over the twelve hundred and ninety-eight miles between the two stations, or an average rate of twenty seven miles a day. We will treat the subject as thoroughly as possible, since it has received little or no attention; indeed there were no data in existence for its study until the notes were collected last year.

The first records ever published on the subject in this country, are notes on six species which appeared in the O. and O., for January, 1884, pp. 1 and 2. These records were based on the observations sent in for the spring of 1883, and though the notes for 1884, are many fold more numerous, they do not give us grounds for a change in the general laws of speed as set forth in that article. It must however be kept steadily in mind, that no complete

and scientific study of the subject is as yet possible, and the present records are given as being the best that can now be obtained, and as furnishing some material for the use of the future student. The records of fifty eight species for the spring of 1883, give an average speed of twenty-three miles a day for an average distance of four hundred and twenty miles. A slightly smaller number of species for the spring of 1884, give exactly the same average speed over an average distance of eight hundred and sixty-one miles. This coincidence, notwithstanding the very different meteorological conditions of the two springs, make it probable that future records will not materially change this rate.

A study of last year's records led to the statement that birds migrate more rapidly in the northern portion of their route than in the southern. As this was based on the notes of only one year, it became a matter of much interest to know whether this would hold good as a general law, or whether it had been the result of specially favorable conditions in the latter part of the season. Accordingly this year, twenty-five species of well known birds were selected, that had full records, and a careful study reveals the fact that they bear out last year's statement. The distance travelled was divided as nearly as possible into two equal portions, and the speed calculated for each. Some of the records do not admit of division, others show an equal speed throughout, while six of them show an increase of seventy-seven per cent in speed for the northern half, and three show an increase of forty-seven per cent. It will thus be seen that the record is strongly in favor of the increase. We can arrive at the same result by calculating the average speed of these twenty-five species for the different months. We get the following results: the average speed for March is nineteen miles; for April, twenty-three miles, and for May twenty-six miles per day. This year's record also bears out the

statement that the later in the season a bird migrates, the higher average speed it will attain. This would naturally be supposed from the preceding statements.

These calculations are average and give us the rate that the bird would travel, provided it moved regularly each day. But we know that many pauses occur, that on many days there is no advance, hence on the days of movement, the speed must be much higher than that calculated. This is clearly seen in the case of the Purple Martin (*P. subis*). From 38^{40} to 46° its average rate is but thirteen miles a day. But we have good reason to believe that there was a pause from April 3d to April 18th, and another from April 18th to May 3d. Taking out the first of these pauses, it raises the rate from 38^{40} to 43^{43} to thirty-five miles a day, and not counting the second pause, the rate for the rest of the distance is twenty-eight miles.

We must also take into consideration the fact that in all probability the same bird seldom migrates for several nights in succession, but after a flight of a night or two stops to rest for several days. So that the birds migrating one night are not the same individuals that were moving the night before.

We have said that the average rate for April is greater than that for March, and is exceeded by that for May, but we cannot say that the actual number of miles performed in a night's journey is therefore greater. It may be so, and probably is, but the known facts would be sufficiently explained if we remember that the later in the season a species moves, the less hindrance it will meet from the elements, and the less number of enforced pauses there will be in its journey. During the month of May there are few if any nights that migration does not take place, while a bird that migrates in March must expect for at least one week out of the four, to be stopped by storms.

In regard to the relative speed of the different species, all we can at present say is that those which migrate latest have, as a rule, the highest speed. Thus the average speed of the Robin, Martin, Cowbird, and Golden-shafted Flicker is about twelve miles per day, while the average of the Summer Redbird, Baltimore Oriole, Ruby-throated Hummer, and Nighthawk is twenty-eight miles. If we try to calculate the relative speed of the different families, we find that some of the species, in a family, migrate early and slowly, others late and rapidly, bringing the average of most of the families very close to the general average of all,—to twenty-three miles a day.

Birds have seldom been seen while on their way at night in *undisturbed* migration. The observations given by Mr. Scott (Bull. Nutt. Orn. Club, VI, April, 1881, p. 97) are the most important, and in these he has not told us at what speed he supposes the birds were moving. We know that birds do not move rapidly when migrating in the daytime, but from the meagre material at hand, we should judge that the speed at night is considerably greater. During day migration the smaller land birds seldom fly faster than fifteen miles an hour, though the larger birds, such as Cranes, Geese, Ducks, etc., move much more rapidly. During the days from August 25th to September 5th, this fall, the Cliff Swallows and Nighthawks have been conspicuous every morning and evening, slowly drifting south and southwest in their fall migration. For an hour and a half, the parties of birds would pass by in almost unbroken succession. Many hundred Nighthawks have been seen during a single evening, and they were far exceeded in numbers by the Swallows. The result of timing them on several occasions gave a rate of about ten to fourteen miles an hour, the former being the more common speed. This slow rate was caused by the irregularity of the flight, as the birds captured their supper and breakfast on

the wing. The morning flight lasted only an hour and was at about the same speed. This would give a distance of about thirty miles traveled by each individual during the morning and evening together, but no one can say how much farther, if any, they traveled during the night. The advance of the hosts of the Warblers, as they move incessantly forward from treetop to treetop, is still slower, being probably but a few miles during a whole day. We know that Geese in their northward flight along the Atlantic coast travel great distances—from 300 to 600 miles at a single journey, and we cannot say positively that the larger birds do not do the same over the land, but the records so far made seem to indicate that the *smaller* land birds, such as Warblers, Finches, etc., do not perform long journeys at one time when over land, but their voyages over the Gulf of Mexico prove that even these small birds are possessed of great power of flight.

The preceding discussion shows rather our lack of knowledge than our knowledge, and that we are almost entirely wanting in *exact* information. For some time to come all we can do is to gather material. In this matter the lighthouses have a large field of usefulness and we shall look with a good deal of interest for the compilation of their last spring's observations.—W. Cooke.

Californian Notes.

Poway Valley, twenty-two miles from San Diego City.

(Continued from page 137.)

Bullock's Oriole (*Icterus bullocki*), very common; nests ready about the same time as the Hooded. It is a pretty sight to see the males of the Hooded courting the females. They will hop up and down a branch, following one another backward and forward, drawing themselves out to their full length and giving their long, slender tails a short jerk from side to

side. A very low note is heard all this time, but no feather pulling like the females when after one another.

Brewer's Blackbird (*Scolecophagus cyanocephalus*), very common; a set of seven eggs was taken April 6th, the largest set I have seen.

Western Kingbird, (*Tyrannus verticalis*), common, nests ready to receive eggs April 27th.

Cassin's Kingbird, (*T. vociferans*) was first seen Jan. 16th. I am pretty sure they breed, but birds would have to be shot with nest to make sure of identification.

Ash-throated Flycatcher, (*Myiarchus cinerascens*). One was seen April 15th.

Say's Pewee, (*Sayornis sayi*) was first noticed Jan. 18th, and *nigricans* is resident and breeds. A set of five eggs was taken April 27th.

Western Yellow-bellied Flycatcher, (*Empidonax difficilis*), first seen April 27th.

Black-chinned Hummingbird, (*Trochilus alexandri*) seems to be more common than any other species. April 23d, a nest was found with young half fledged, and another with fresh eggs.

Anna's Hummingbird, (*Calypte annae*), April 23d, nest with young just hatched.

Poor-will, (*Phalaenoptilus nuttalli*), one was seen at dusk along a small creek.

Red-shafted Flicker, (*Colaptes auratus mexicanus*), breeds.

Texan Kingfisher, (*Ceryle americana cabanisi*), one was seen sitting on a dam of a water storage pond.

Chaparral Cock, (*Geococcyx californianus*), was seen in the cacti, where it breeds.

Western Horned Owl, (*Bubo virginianus subarcticus*), was heard, breeds.

Burrowing Owl, (*Speotyto cunicularia hypogaea*), is not uncommon. I took a set of eggs April 23d.

Cuban Sparrow Hawk, (*Tinnunculus sparverioides*), is not uncommon, breeds.

Western Red-tail, (*Buteo borealis calurus*), breeds. I noticed one carrying sticks to build in a high Sycamore, April 27th.

Turkey Buzzard, (*Cathartes aura*), was seen every day.

Mourning Dove, (*Zenaidura carolinensis*), was seen all winter, breeds.

Californian Quail, (*Lophortyx californica*), is very common, breeds all over the hills in the cacti.

Killdeer, (*Oxyechus vociferus*), is not uncommon and breeds.—W. Otto Emerson, Haywards, Cal.

Notes from Fairfax Co., Va.

PRairie Warbler, (*Dendroeca discolor*), May 13, while pushing through a lot of scrubby, young oaks, discovered a small neatly made nest, containing four eggs, in an oak sprout, about three feet from the ground. Stepping back two or three yards, I waited a few minutes when a small bird, which I recognized as the Prairie Warbler, flew to the nest and settled down until nothing but its bill and the tip of its tail were to be seen. On my approaching it flew a short distance, uttering the single note *teep*, at short intervals. It flew about among the bushes picking at insects, until I moved off, when it returned to the nest. Very much pleased with my find, I left the nest until the following day, when, as it still contained but four eggs, I secured it and found the eggs to be quite fresh. During the next week, I discovered eight more nests, from each of which I obtained a set, and noticed several birds who acted as though they had nests in the vicinity, but I was unable to find them. The nests were beautifully woven structures, composed of fine plant fibers and cottony substances outside, and lined with downy feathers and horse-hair; they were placed from two to seven feet from the ground in a variety of positions—three being in young pines, one in a maple sprout, another in a huckleberry bush, the sixth in a blackberry bush, etc., and as many were found in elevated situations, as in the lowlands, but scrubby, lightly-timbered sites

were always chosen. The eggs were about the size of those of the Blue Yellow-back, (*Parula americana*), but were more oval in form, and marked with darker spots. One set contained three eggs; three had five eggs each; and the other five were each composed of four eggs.

GOLDEN-CROWNED THRUSH, (*Sturnus auricapillus*,) May 21, a bird of this species suddenly appeared in front of me, as I was walking along a brook. A close search revealed her leaf-thatched nest, which contained five partially incubated eggs, closely resembling those of the Yellow breasted Chat, (*Icteria virens*), in appearance.

YELLOW-BREASTED CHAT, (*Icteria virens*,) First of May the Chats arrived, and two weeks later, their nests were to be found in almost every patch of blackberry bushes. The nest was composed of dry leaves, plant-stalks, and grasses, neatly put together; many of them contained only three eggs, but the majority held four.

WHITE-EYED VIREO, (*Vireo noveboracensis*,) May 28, obtained a set of four fresh eggs. The nest, which was composed of fine strips of inner-bark, bits of leaves, spiders' webs, and tree-moss outside, lined with fine grasses, was hanging in the fork of an alder bush, about two and a half feet from the ground.

CARDINAL GROSBEAK, (*Cardinalis virginianus*.) This bird was very abundant; the nests were usually placed in a young cedar or pine. The number of eggs in a set never exceeded three and in several nests only two were deposited. First set was taken May 10.

COMMON CROW, (*Corvus frugivorus*,) Obtained my first set April 9; ten days later discovered a nest containing four young, just hatched, and two eggs. Every nest found was in a pine.

WHIP-POOR-WILL, (*Caprimulgus vociferus*,) May 14, as I was passing through a young pine wood, a Whip-poor-will started up almost at my feet, and flying a few yards lay on the ground fluttering its out-

spread wings. The two white eggs, spotted with brown and lilac, were soon discovered and incubation was found to have begun. June 1, found a nest with one young a few days old, and a stale egg and the next day discovered another with the same contents. June 5, an old bird started up a few feet ahead of me, but the two little brown birds so resembled the leaves on which they lay, that I had to make a close search on my knees to find them. The four nests found were each in a clump of young trees, and were composed of old, dry leaves, just as they had fallen from the trees. Does it often happen that one egg is barren?

COOPER'S HAWK, (*Accipiter cooperi*,) May 5, discovered a nest containing four eggs, incubation advanced, and two days later another containing three eggs, incubated a few days. Each nest was a bulky affair and was placed in the top of a pine.

TURKEY BUZZARD, (*Cathartes aura*,) April 29, flushed an old bird from her nest under a rock, in the Bull Run ravine, and secured the two eggs, which contained large embryos. The eggs were laid on the bare ground, and the place was not filthy as I expected to find it. June 5, in a large oak wood, saw a bird fly from a hole under a tree and obtained the one bad egg. The bird flew to a high tree where it perched and made a hissing noise, similar to that of the Goose.—H. K. Jamison, Manayunk, Penna.

NOTES FROM MIDDLE NORTH CAROLINA.—On Oct. 15, while out collecting, we secured a specimen of the Connecticut Warbler, (*Oporornis agilis*), in fall plumage. When shot it was hopping about in some alder bushes in the lowgrounds. This is the first we know of from this State and on account of its rarity we have preserved the specimen, although somewhat damaged by the shot.

A Lark, (*Sturnella magna*), having its tail, the primaries on both wings, and half the secondaries on the right wing pure white, was shot on the exposition grounds on October 31st. It had also many stray white feathers in its plumage, which was much paler than usual; the Lark was also an unusually large one. During last summer we shot several specimens of the Rough-winged Sparrow, (*Stelgidopteryx serripennis*), which is said by Jordan's *Vertebrates* to be rare eastward, but it seems common around here in the summer.—H. H. & C. S. Brimley, Raleigh, N. C.

THE
ORNITHOLOGIST
—AND—
OÖLOGIST.
A MONTHLY MAGAZINE OF
NATURAL HISTORY,
ESPECIALLY DEVOTED TO THE STUDY OF
BIRDS.
THEIR NESTS AND EGGS.

DESIGNED AS A MEANS FOR THE INTERCHANGE OF NOTES
AND OBSERVATIONS ON BIRD LIFE.

FRANK B. WEBSTER, Publisher,
PAWTUCKET, R. I.

Editor's Notes.

With this number, the first volume of O. and O. under our management is completed. We thank our contributors very cordially for their assistance which has enabled us to carry out the programme with which we commenced with a degree of success, of which our readers must be the judges. The preparation of the monthly number has not been unattended with difficulty, and has involved an expenditure of time which exceeded our first expectations. But this we do not regret, for the interest has grown upon us and we naturally feel pride in the success of our undertaking. With increased space for their contributions, we expect our next year's volume to be more attractive to our writers and instructive to our readers than the Magazine has ever been before.

We expect to continue next year the communications of Prof. W. W. Cooke on the Mississippi Valley Migrations. He writes us that he has a vast mass of notes upon which to base his deductions. The subject is almost exhaustless, and has been presented by Prof. Cooke in an attractive form which has made his papers interesting as they are valuable. Dr. Morris Gibbs promises us an annotated Catalogue of

the Birds of Kalamazoo County, Michigan, the first instalment of which will appear in our January number.

The subject of our subscription list is not one that we care to say much about, but our Publisher naturally considers it of the very greatest importance. It may not be out of place for us here to ask our Subscribers to renew their subscriptions promptly and to assist us as opportunities may offer, in bringing our Magazine to the notice of their friends who are interested in its objects. Our circulation is not large—our constituency is necessarily limited—hence the necessity for the increased price of which notice has been given.

With the October number, the "Auk" completed its first volume. The number contains as usual many valuable articles and notes. This ornithological quarterly is a thoroughly satisfactory publication, and a credit to the names identified with it.

◆◆◆
Review of 1884.

BOSTON AND EASTERN MASSACHUSETTS.

Early in April there seems to have been a very large flight of Red-tailed Hawks. Many were taken in traps. At one market stall in the city over a hundred were displayed at one time.

The list of Albinos included a Cedar-bird (already described by Mr. Whiting), an English Sparrow shot within city limits, and a creamy white Crow from near Lexington. From the number of gunners who describe "White Cranes" they have seen, we feel quite confident that Snowy Herons have not all been confined to the South this season. Perhaps Mr. Talbot may another season prove to his professional friends that he was *not* mistaken.

The Taxidermist's business has been reported unusually dull. In August a few Terns were sacrificed on the altar of fashion. The plump Esquimaux Curlew did not fail to form the centre of

attraction in many a fine bunch of Plover whose fall migration was unceremoniously terminated. On several occasions when we were called upon to remove the "jackets," the request to return the meat indicated the esteem of the epicurean.

Our first prize was a fine specimen of the Red-throated Diver, (*Colymbus septentrionalis*), with the Red (?) patch, taken Oct. 6th. Although the bird is very common at this season—at least in Rhode Island waters—we never saw one taken in this plumage and believe it to be rare.

In the early part of October, several Duck Hawks, (*Falco peregrinus*), proved unvary, but as they are not songsters, we suppose no one will mourn their loss.

A representative of our national bird in the Pine-tree State settled down to its not uncommon banquet of "dead useful." How large and strong it seemed as it tipped the scales at 12 pounds!!

A few Wood Ducks cause us to carefully watch the Ducks now coming in, led by Black, Ruddy and Young Mallards.

We should judge that an unusual number of Pheasants have been imported this season "for millinery purposes"—somewhat lowering the prices. Comparatively few of them are fit for the Cabinet and another season may find still fewer. Looking over a large lot, we found two Reeve's Pheasants remarkable for length of tail. In the large millinery establishments, we notice a few stuffed birds, but the prevailing fashions demand that they should be thoroughly dissected. A new feature is the bronzing in Silver, Gold or Copper of the bill, feet and quills of the wing and tail feathers.

The annual Bird Show closed Oct. 12th, after a short season. Many rare and curious strangers were present. "Poli" in every variety of size, plumage and disposition, Eagles, Hawks, Owls, Pelican, etc. Two exhibits were especially attractive—a Whidah Bird in full plumage, and one of our little Ruby-throats, which regardless of

our presence, sipped its sugar and water with evident relish. These birds being all alive and well would no doubt have been far more pleasing to Mr. F. A. L. than the exhibit under the auspices of the Am. Soc. of Taxidermists held in the same room two winters ago.

A novel and not uninteresting business is a Natural History establishment in a large seaport. A sea captain with 60 feet of dead snake which the trip from Africa proved fatal to, Seals from the dime museum, Alligators unclaimed at the express office, Albatross fresh from Cape Town, Travellers from South America with small lots of bright birds that are in such demand that we scarcely take the trouble to identify them. Moths with 10 inch extent of wing. Beetles for a life size sketch of a pair of which a page of the O. & O. would scarcely afford room. Curious specimens of Dried Fish, Shells, etc. Such have been our actual, every day experience.

Our friend J. M. Wade will forgive us if we mention him as one of the attractions. Were his visits as protracted as those of some of the birds upon our top shelves they would insure us a call from any old subscribers who visit the city. Had the A. O. U. consulted him they would not have required to "circular" the country to decide that the English Sparrow must go.—*F. B. W., Boston.*

The Blue Yellow-backed Warbler.

(*Parula americana.*)

This beautiful but retired species of our American Warblers has but till lately been well known to the science of Ornithology. Therefore, I take the liberty to pen a few notes and observations taken by myself during the last four years. This is one of the handsomest, if not the handsomest, of our Warblers. It arrives about the 10th of May, but I am not sure about the date of departure. Soon after their arrival the

males may be seen hanging head downwards or flying from one old mossy limb to another, swinging, turning and twisting in their merriment at once more being among their nesting haunts.

Soon after their arrival the females come, and the mating at once takes place. No jealousy is displayed and the ceremony goes on quietly. The building process takes place about the 20th of May and the nest is finished in about a week, though I have known instances when the second nest was built and two eggs deposited in a week. The second nest is never (?) as compact and neat as the first. It is almost entirely composed of the hanging Spanish moss with perhaps a few horse hairs or a little downy substance to serve as a lining. Three to five eggs are then deposited and incubation (in which the male participates) commences. Some collectors think the nest hard to find. I generally discover mine by the round, globular shape of the bottom of the mossy bunch from which it is seldom any shreds of moss hang. It is easy to be distinguished when the moss of the tree is not too thick. After the young are hatched the parent birds are busily engaged in feeding the wide, open-mouthed youngsters with tiny larvæ from under the bark of old trees. The Blue Yellow-backed Warbler, though owning a rather large name, fully merits it. I have but a few times been able to see a lively bird in motion, so that I could study its habits and actions.

In June, 1883, I came across a mossy orchard from which I had before collected eggs, and my first find was a nest containing one fresh egg; the next, a nest contained four downy young, for whom the parents pleaded in their best words; and the last, but by no means the least, a full fresh set (four eggs.) As I ascended, the bird (a male) put its head and shoulders just out of the tiny door, peered about for a moment and then left the nest, just as I

was about to put my hand over the entrance and make it a prisoner. My fingers dashed loosely through the outstretched primaries and the bird was flown. My next object was to secure the set and nest and transfer them safely to the ground. In doing this I was obliged to spoil the nest, as is too often the case when the nest is far from the ground, and especially if the branch or limb is of a stout oak. The thickly entwined and matted moss was no easy thing to tear, and the branch being a stout one, it was of no use trying to break or cut it, as any jostling would have a tendency to roll the eggs together and possibly crack one or more, as I once found to my own cost. The hole was too small to admit more than the forefinger; so whipping my knife from my pocket, I quickly slashed the moss in twain and putting the hanging ends between my teeth, I descended with my beauties without the least injury. There are other experiences I might relate but for want of space.

Another thing which I would like to speak about this bird is its perseverance. In about twenty days I got three sets, all out of one tree. The second, if not the third, was laid by the same bird. One nest I found was about three feet from the ground.

In 1881 I collected two sets of this exquisite little Warbler; in 1882 the list was increased to five sets; in 1883 I collected four sets, besides some single eggs; and in 1884 but four sets were taken. I should probably have taken more last season but for my limited time. The eggs are of a pure white ground, sprinkled chiefly about the larger end by small, reddish dots and a few blotches. One set before me is covered from apex to base with small dots.

In conclusion I would say that I should be most happy to hear from others on the habits and nesting of the Blue Yellow-backed Warbler.—Charles H. Andros.
Taunton, Mass.

List of Birds of Santa Cruz, Cal.

OBSERVED BY JOSEPH SKIRM.

- *1 Russet-backed Thrush (*Hylocichla ustulata*), common.
 2 Dwarf Thrush, (*Hylocichla unalascae*), common in fall and winter months.
 3 Western Robin, (*Merula migratoria propinquia*), common from December to middle of March.
 *4 California Thrasher, (*Harporkynchus redivivus*), common.
 *5 American Water Ouzel, (*Cinclus mexicanus*), quite common.
 6 California Bluebird, (*Sialia mexicana*), common.
 *7 Ground Tit, (*Chamaea fasciata*), quite common.
 8 California Chickadee, (*Parus rufescens neglectus*), very common but nests are extremely hard to find.
 *9 Least Tit, (*Psaltriparus minimus*),
 9 Pigmy Nuthatch, (*Sitta pygmaea*), quite common.
 10 California Creeper, (*Certhia familiaris occidentalis*), rare.
 *11 California Bewick's Wren, (*Thryomanes bewickii splittorus*), common.
 *12 Western House Wren, (*Troglodytes aedon parkmanni*), common.
 13 Western Winter Wren, (*Anorthura troglodytes pacificus*), rare.
 14 Tule Wren, (*Telmatodytes palustris paludicola*), quite common.
 *15 Lutescent Warbler, (*Helminthophaga celata lutescens*), quite common.
 *15a Long-tailed Chat, (*Icteria virens longicauda*),
 *16 Pleated Warbler, (*Myioictodes pusillus pileolatus*), quite common.
 17 Summer Yellowbird, (*Dendroica aestiva*), common.
 *18 Western Warbling Vireo, (*Vireo swainsoni*), common.
 19 Hutton's Vireo, (*Vireo huttoni*), quite rare.
 20 Purple Martin, (*Progne subis*), common.
 21 White-rumped Shrike, (*Lanius ludovicianus excubitorides*), common.
 *22 Cliff Swallow, (*Petrochelidon lunifrons*), common.
 *23 Barn Swallow, (*Hirundo erythrogaster*), common.
 24 White-bellied Swallow, (*Tachycineta bicolor*), common.
 25 Violet-green Swallow, (*Tachycineta thalassina*), common
 *26 Bank Swallow, (*Cotile riparia*), common.
 27 Rough-winged Swallow, (*Stelgidopteryx serripennis*), quite common.
 *28 California Purple Finch, (*Carpodacus purpureus californicus*), common.
 *29 Crimson House Finch, (*Carpodacus frontalis rhodobolpus*), very common.
 *30 American Goldfinch, (*Astragalinus tristis*), common.
 *31 Green-backed Goldfinch, (*Astragalinus psaltria*), common.
 *32 Lawrence's Goldfinch, (*Astragalinus lawrencei*), common.
 33 Pine Finch, (*Chrysomitrix pinus*), common.
 *34 Western Savannah Sparrow, (*Passerculus sandwichensis alaudinus*), common.
 *35 Western Lark Finch, (*Chondestes grammica strigata*), rare.
 *36 Gambel's White-crowned Sparrow, (*Zonotrichia gambeli*), common.
 *37 Western Chipping Sparrow, (*Spizella domesticus arizonae*), common.
 *38 Oregon Snowbird, (*Junco oregonus*), common.
 39 Golden-crowned Sparrow, (*Zonotrichia coronata*), common from the middle of October to the middle of March.

- *40 Californian Song Sparrow, (*Melospiza fasciata samuelis*), very common.
 *41 Spurred Towhee, (*Pipilo maculatus megaonyx*), clutch usually four eggs; common; their first clutch is laid in the latter part of April on the ground; their second clutch invariably in bushes from six inches to three feet from the ground.
 *42 Californian Brown Towhee, (*Pipilo fuscus crissalis*), common.
 *43 Black-headed Grosbeak, (*Zumelodia melanocephala*), common.
 *44 Lazuli Bunting, (*Passerina amoena*), common.
 *45 Red-and-Black-shouldered Blackbird, (*Agelaius phoeniceus gubernator*), common.
 *46 Red-and-white-shouldered Blackbird, (*Agelaius tricolor*), common.
 *47 Western Lark, (*Sturnella neglecta*), very common.
 *48 Bullock's Oriole, (*Icterus bullocki*), common.
 *49 Brewer's Blackbird, (*Scotelephagus cyanocephalus*), very common.
 50 Common Crow, (*Corvus frugivorus*), rare.
 51 American Raven, (*Corvus corax cariniorus*), rare.
 *52 Blue-fronted Jay, (*Cyanocitta stelleri frontalis*), common.
 *53 California Jay, (*Apheloconia californica*), common.
 *54 Rudy Horned Lark, (*Otocoris alpestris rubus*), common.
 *55 Western Kingbird, (*Tyrannus verticalis*), common.
 *56 Ash-throated Flycatcher, (*Myiarchus cinerascens*), common from May to September.
 57 Say's Pewee, (*Sayornis sayi*), quite common in fall and winter months.
 58 Olive-sided Pewee, (*Contopus borealis*), rare.
 59 Western Wood Pewee, (*Contopus richardsoni*), rare.
 *60 Western Yellow-bellied Flycatcher, (*Empidonax difficilis*), common.
 *61 Anna's Hummingbird, (*Calypte annae*), common.
 *62 Allen's Hummingbird, (*Selasphorus allenii*), common.
 63 Poor-will, (*Phalaenoptilus nuttallii*), rare, nest found by Mr. A. M. Ingerson in season of '83 on the ground; eggs two; pure white.
 *64 Harris Woodpecker, (*Picus villosus harrisi*), quite common.
 *65 Gairdner's Woodpecker, (*Picus pubescens gairdneri*), quite common.
 *66 Californian Woodpecker, (*Melanerpes formicivorus bairdi*), common.
 *67 Red-shafted Woodpecker,? (*Colaptes auratus mexicanus*), very common.
 68 Belted Kingfisher, (*Ceryle alcyon*), rare.
 *69 American Barn Owl, (*Aluco flammeus americanus*), common.
 *70 California Mottled Owl, (*Scops asio bendirei*), quite common.
 71 Western Great-horned Owl, (*Bubo virginianus subarcticus*), rare.
 *72 Burrowing Owl, (*Speotyto cunicularia hypogaea*), common.
 73 Short-eared Owl, (*Asio accipitrinus*), rare.
 *74 Sparrow Hawk, (*Tinnunculus sparverius*), common.
 75 Osprey, (*Pandion haliaetus carolinensis*), rare.
 76 Cooper's Hawk, (*Accipiter cooperii*), rare.
 *77 Western Red-tail, (*Buteo borealis calurus*), common.
 78 Golden Eagle, (*Aquila chrysaetos canadensis*), common. In season of 1881 found a nest containing two young full fledged.
 79 Bald Eagle, (*Haliaeetus leucocephalus*), rare.
 *80 Californian Condor, (*Pseudogypadius californianus*), common.

- *81 Turkey Buzzard, (*Cathartes aura*), common.
 82 Band-tailed Pigeon, (*Columba fasciata*), common from 15th of September to middle of March.
 *83 Mourning Dove, (*Zenaidura carolinensis*), common.
 *84 Californian Quail, (*Lophortyx californica*), common.
 85 Great Blue Heron, (*Ardea herodias*), common.
 86 American Bittern, (*Botaurus lentiginosus*), quite common.
 *87 Killdeer, (*Oxyechus vociferus*), common.
 *88 Snowy Plover, (*Egialitis cantianus nivosus*), saw two young in season of '84.
 88 English Snipe, (*Gallinago media*), common from November 1st to middle of March.
 89 Virginian Rail, (*Rallus virginianus*), rare.
 *90 American Coot, (*Fulica americana*), common.
 *91 Mallard, (*Anas bosca*), common.
 *92 Ruddy Duck, (*Erismatura rubida*), common in winter; about dozen pair remain here the whole year at Corcoran's Lagoon.
 *93 Brandt's Cormorant, (*Phalacrocorax penicillatus*), common.
 *94 Baird's Cormorant, (*Phalacrocorax violaceus resplendens*), common.
 95 Royal Tern, (*Sterna regia*), very rare; shot two the 19th of March, 1884.
 *96 Pigeon Guillemot, (*Uria columba*), common.

I have personally collected the eggs of those marked with an asterisk. There are a great many water birds here of various kinds, that I am not at all familiar with, never having made a study of them. I am positive of the identity of all the birds above named. The remarks upon them are from my own observations.—*Joseph Skirm.*

Why do Shrikes Hang Up their Food?

I have often seen lizards, grasshoppers, etc., impaled on thorns or securely wedged in the forks of some twig, by Shrikes; but as far as I am aware, no one has satisfactorily explained why this is done.

The Shrikes are rather dainty in eating and never, I believe, bolt their food entire. Even grasshoppers and other small prey are lodged in forks of limbs and torn into pieces before being eaten.

Now in eating a bird or mouse, the Shrike cannot use its weak legs to secure the prey, while tearing it to pieces with the powerful beak, after the manner of Hawks; and so it must resort to some artificial means of holding its prey. I once kept a Shrike in confinement. On the bottom of the cage I placed a few small limbs for a

perch. For food I gave it the bodies of birds as fast as I skinned them. When one was placed in the cage, the Shrike would take it in its bill, carry it to the limbs and placing it securely in a forked branch would brace itself with its feet on one of the limbs and tear off small bits and eat them; thus showing that the object in placing the prey in the fork was to secure it in a steady position.—*A. L. Parkhurst, San Jose, Cal.*

YELLOW-HEADED BLACKBIRD, (*Xanthocephalus icterocephalus*).—An abundant bird in some portions of the Territory, inhabiting marshes and wet prairies. At Fort Laramie I found a breeding place and secured fifteen nest complements of eggs and a few nests. The nests were built in the tall rushes of a slough and formed of rush leaves of the year before, very nicely woven together and lined with the same material in fine pieces. They were firmly attached to three or four rushes and built very close to the water among a colony of Red-wings, (*Agelaius phoeniceus*). The male is a very handsome bird. Black; head (excepting lores) neck and the upper part of breast yellow, large white patch on wings, length 11 inches, wing 5½, tail 4½, female brownish-black, no white on wing, considerably smaller than the male; length 9 inches or a little more. Have never seen the young, but they are said to be "much like the female," (Couch). The male sometimes has slight touches of yellow on belly and legs. It is the handsomest of all black-birds, and almost entirely a western bird. It has been quoted from Greenland; Reinhart.—*Chas. T. Morrison, Fort McKinney, Wyo. Ter.*

WOODPECKERS.—Our smaller Woodpeckers are sometimes accused of injuring the apple and other fruit trees, but the depredator is probably the larger and rarer yellow-bellied species. In the fall I caught one of these in the act of sinking long rows of his little wells in the limb of an

apple tree. There were series of rings of them, one above another, quite around the stem, some of them the third of an inch across. They are evidently made to get at the tender, juicy bark, or cambium layer, next to the hard wood of the tree. The health and vitality of the branch are so seriously impaired by them it often dies. When the woodpecker is searching for food, or laying seige to some hidden grub, the sound of his hammer is dead or muffled, and is heard but a few yards. It is only upon dry, seasoned timber, freed of its bark, that he beats his reveille to spring and woos his mate.

Wilson was evidently familiar with this vernal drumming of the woodpeckers, but quite misinterprets it. Speaking of the Red-bellied species, he says: "It rattles like the rest of the tribe on the dead limbs, and with such violence as to be heard in still weather more than a half mile off; and listens to hear the insects it has alarmed." He listens to hear the drum of his rival or the brief and coy response of the female, for there are no insects in these dry limbs.

On one occasion I saw downy at his drum when a female flew quickly through the tree and alighted a few yards beyond him. The male watched her for a few moments, and convinced perhaps that she meant business, struck up his liveliest tune, then listened for the response. As it came back timidly but promptly, he left his perch and sought a nearer acquaintance with the prudent female.—*John Burroughs, in "The Century."*

Brief Notes.

THE TERNS IN NOVA SCOTIA.—Looking over some back numbers of the O. & O., I notice in No. 7, July, 1884, under the heading of "Terns in Nova Scotia," by J. H. Langille, the statement that the complete number, of eggs of the four species of Terns, Arctic, Wilson's Roseate, and Forster's is "most commonly two, often one, sometimes three." I have collected and examined a large number of sets of the three Terns, Arctic, (*macrura*), Wilson's, (*hirundo*), and Roseate, (*dougalii*), during the past two seasons on the Massachusetts coast, and I find the complete number of eggs is most commonly three, often four, sometimes five. There are several notes I made dur-

ing the past season worthy of mention. I found after dissecting quite a large number of Roseate Terns, that the female has a much brighter shade of pink on the breast in the breeding season than the male. The Arctic Terns leave their breeding ground in the fall fully two months before the Roseate or Common. I did not see nor take any after Aug. 12, and could not learn of any being seen.

Black Tern, (*Hydrochelidon lariformis*), is given in N. E. Bird Life as a rare but regular migrant in spring and fall, I found them common at Muskeget and Tuckernack islands during August and the first week in September, 1884. I know of as many as seven being taken in one day. I saw quite a number in bunches of from three to six flying around and over Muskeget, where they roost with the other Terns. Most of the specimens taken were young.—*J. C. Cahoon, Taunton, Mass.*

NESTING OF CHEWINK OR TOWHEE BUNTING, (*Pipilo erythrorthalmus*).—As regards the experience of several given in late issues of O. & O., concerning the nesting of this interesting bird, I would add that such notes are not always applicable to every locality. Five or six years ago, I found a nest over six feet high, during the month of August, upon the broken limb of a Linden, surrounded by young branches. It contained three fledged young, which left their nest upon my approach.

In May, 1881, I found a nest containing two fresh eggs about a foot from the ground within a crippled hawthorne bush, recent rains had flooded the ground for some time previous. Upon crossing the creek I found myself on a thickly wooded elevation where I found a nest upon the ground, surrounded by a thick cluster of *Triostium perfoliatum*. Within the nest I found one egg with a half incubated dead embryo, outside the nest lay a fresh egg cold and wet, as was the whole nest—although the bird flew from it—the rains had been heavy, cold and long.

In July I found within these same woods one nest about five feet from the ground in a bush, and two others a few rods distant upon the ground, one surrounded by a tuft of grass, the other by a tall open wild Aster, the first held four young fledglings, the others three and four each, all nearly of the same age.—*A. H. Mundt, Fairbury, Ill.*

CURIOS NESTING.—May 6, while out collecting with a companion, we stopped at a spring for a refreshing drink, for the day was very warm. All at once we were attracted by a rustling overhead and imagine our surprise to see a Robin, (*M. migratoria*), flying out of a large knot hole in an oak tree which was near at hand. Hastily climbing we found a nest in the hole, loosely put together, which contained four fresh eggs.

The day following while hunting for Hawks eggs, a Cooper's Hawk, (*A. cooperi*), flew across my path and lit on an adjoining tree. After examining five nests without success I finally climbed up to an old Squirrel's nest and found the eggs (4) which were secured.

May 29—I found a remarkably low nest of the Yellow-shafted Flicker, (*Colaptes auratus*), in a maple stump. The hole was less than three feet from the ground and the bottom of the nest measured one foot eleven inches from the entrance. It contained ten eggs.

But one of the most curious finds I have had this season is noted on the 18th of June, a newly constructed nest of a Cedar Bird, (*A. cedrorum*), in an orchard tree about seven feet from the ground which contained one egg. Passing that way on the 23d, imagine my surprise to see a Robin sitting upon the nest and the Cherry Bird upon a limb near. The Robin did not move until I had nearly got her in my hand when she flew off and disclosed to view four eggs of the Cherry Bird's and one Robin's egg. They were all fresh. Whether the Robin had been robbed before

she had laid her complement of eggs or whether she lacked forethought in providing a receptacle for them is for the readers of the O. & O. to judge. Should like to hear from others on this question.—*F. W. Andros, Taunton, Mass.*

THE BARN OWL.—Is the Barn Owl often found as far north as this? I have one that I killed two years ago, it was hunting for mice on a marsh when I found it and though it was a bright, sunshiny day, it seemed to be perfectly at home.—*Vernon Barley, Elk River, Minn.*

BIRD LIME.—The best Bird Lime I know of is made of raw Linseed oil. Boil the oil down to proper consistency, which is when it will adhere to the finger with the most slight and quick touch. Try it as it boils by taking a little out on a stick and let it cool in the air and touch as above stated. Keep in a small stone jar with water on it to prevent drying. Always make this Lime out of doors over a slow fire, otherwise it is liable to burn up.—*S. Rader.*

CORRESPONDENCE.

The Destruction of Birds for Millinery Purposes.

TO THE EDITOR OF ORNITHOLOGIST AND OOLOGIST: Sir,—I notice in the November number of your magazine, a lengthy note from L. M. McCormick, of Washington, D. C., in regard to the destruction of small birds for millinery purposes which interested me very much. While I agree with him on some points, I am not satisfied that he is attacking the worst enemy of our feathered friends.

I live in a small country village and in a community that almost ignores the laws in regard to the destruction of birds both small and large. I have always since I could sight a gun, owned one and a dog, and have always been considered a fair shot and a good hunter for this section. I am perfectly familiar with the woods for ten miles in any direction from this village. I have for the last ten years camped out from one to three weeks each year, and these trips have been at different seasons, from the first of April to the first of December. So much for my chances of observation in that direction. I have never shot a bird or animal unless I had a use for it. My business has been in the centre of the village for the last eight years, and I have had dealings with every person within three miles, and therefore have had a good chance to observe how many birds were used on hats in this section, which will not average more than one bird for five ladies, and one-half of them at least, are tropical birds which never visit the New England States. Many of these birds are fixed up and made to serve two and even three years. It will be seen that the destruction of birds for this purpose is very small in comparison with the greater pest of which I propose to write.

We thus arrive at an average of not more than one bird for each family, and may admit that half of these are not our visitors. In regard to the remaining half, Blue Jays are the kind used most, next the Yellow Hammer, next small Hawks, and but very few Yellow Birds. The first every one admits is a decided enemy to all kinds of small birds, their eggs and young. The second lives principally on ants, which insect is not considered to be a pest, and the third is a well-known enemy of all small birds in every way. I state these facts in regard to the kind worn, also the amount from actual memoranda which I have kept for the last six months. The real enemy of the small birds and game,—of which I became convinced upwards of fifteen years ago and have not seen cause to change my opinion since, but on the contrary each year confirms my belief that I am right—is the farmer's favorite cat.

I have known one cat in an adjoining town to kill and bring into the house more Ruffed Grouse in the month of August than all the gunners in the town killed in the season. This is from personal knowledge, and no doubt it might be added to this that the same pet killed many hundreds of smaller birds in the course of the year—birds, each one of them would have done the farmer more good in one year than the cat had ever done. On the average there is one of these pets for each family in this county.

During the week I camped out this fall, I shot and killed not less than seven in the woods. Now what is needed is that all lovers of small birds should unite in this matter and get some law passed or tax put upon cats that will rid the country of these marauders. It make no difference how well they are fed, I have not seen the cat yet that would not make her daily or nightly hunt for small birds if she had liberty to do so.

The next enemy in comparison is the common red squirrel of our Maine woods, from which no small bird's nest is safe, not even the Baltimore Oriole is out of their reach. I have been an eye witness to the destruction of quite a number of different kinds of young birds in the nests, some of them my pets.

These squirrels are four times more numerous in the three northern New England States than any other, and they destroy untold numbers of little birds.—*A. T. G., Damariscotta, Maine.*

EDITOR OF O. & O.—Sir: We notice in the communication of L. M. McCormick, that he states that we advertised for Grackles, Jays and other bright birds, and asks for information. We made no general advertisement. In January we sent out about 300 circulars, to customers only, offering 25¢ for Blue Jays and Woodpeckers, and received about as follows:

250 Red wings,	30 Warblers,
150 Blue Jays,	100 Various dull skins,
75 Woodpeckers,	6 Orioles.
20 Hawks,	

About one-half were too poor for any use except millinery. During the past season there has been very little call for bright native birds for that purpose. The largest lot that we had offered to us by any one party were contained in a box of about 100, the origin of which, judging from the tags, we think Mr. McCormick might find by making a local investigation, and thus discover that the opportunity to unload poor skins, without regard to the use to be made of them, is not altogether confined to taxidermists and dealers. As dealers we would do our best to fill any order legitimately, but we do not apprehend that we shall ever see the day that our common insectivorous birds will suffer for manufacturing purposes.

We are not frightened when we see young game birds advertised for sale by champion protectionists, into believing that the slight encroachment on the game law is to be disastrous, nor that all birds in time will be prematurely hatched by the blow pipe.—*Ellis & Webster.*

WILL APPEAR IN JANUARY NUMBER.—“List of Birds seen or captured in Locke, Mich., June—August, ‘84,” by Dr. H. A. Atkins; “Some Californian *Raptores*,” by A. L. Parkhurst; “Notes on Birds of the Sea Islands, So. Car.,” by Walter Hoxie; “Florida Bird Life,” by E. M. Hasbrouck.

Index to Volume IX.

The Index to Volume IX is issued to subscribers along with this number. We have endeavored to make it much more complete and useful for reference than that of former volumes.





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